# ECLIPSES OF THE MOON IN INDIA

BY

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#### PREFACE

THE present volume has been prepared in continuation of the "Indian Calendar", which contained, *inter alia*, Tables drawn up by Dr. Robert Schram for determining questions connected with eclipses of the sun in India for a period of 1600 years. The eclipses of the moon are now dealt with, and a few notes added.

I desire to express my best thanks for their kind advice and assistance to Professor H. H. Turner, of Oxford, and Mr. A. C. D. Crommelin, of the Royal Observatory, Greenwich.

Pandit Śankara Bâlkṛishṇa Dîkshit, whose death early in the present year is greatly to be deplored, rendered valuable help by checking my figures.

June, 1898.

R. SEWELL.



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#### INTRODUCTION, RULES, AND EXAMPLES.

THE following Tables will be found to contain all that is necessary for the determination of the actual time of occurrence of eclipses of the moon for the period of sixteen hundred years, from A.D. 300 to 1900. The calculations in Table E. have been based on von Oppolzer's Canon der Finsternisse (Denkschriften der Mathematisch naturwissen schaftlichen classe der Kais. Akademie der Wissenschaften in Wien, Vol. LII., 1887). All eclipses are included, whether visible or invisible. Visibility at a given spot, if not apparent on the face of Table E., must be tested according to the rules hereinafter given.

The results obtained will be closely approximate, but are liable to small errors of a minute or two, owing to minor inequalities in the moon's motion which have been left out of account by Oppolzer. Table G. also is similarly liable to slight variations, for reasons which will be noted below. Absolute exactness is impossible under the circumstances, and it would be useless to attempt more than is given in this volume.

A comparison between the times fixed by Oppolzer's Canon and by the Nautical Almanacks since the year 1767 (see Table H.) will shew how even the most reliable authorities differ in their calculations.

A lunar eclipse is visible in the same degree on every part of the earth's surface which, during any part of its occurrence, is turned away from the sun and towards the moon—then at the full and on the other side of the earth; or, in other words and speaking broadly, on any meridian between the hours of sunset and sunrise. For Indian purposes, therefore, the calculations for these tables have been made for the meridian of Lanka (Ujjain), i.e. Greenwich East Longitude 75° 46′, and the necessary time-correction, 5 h. 3 m., has been applied to the Canon figures which were prepared for the meridian of Greenwich. All times are measured from mean sunrise at Lanka, taken as 6 A.M.

Von Oppolzer calculated every eclipse in apparent time; and then, for civil purposes, changed this to mean- or clock-time for the meridian of Greenwich by applying the daily equation of time. The tables in the present volume give similar mean time for the meridian of Lanka.

No account has been taken of the effect produced on the moon by the penumbra, but

the question remains doubtful, and in such case the actual visibility at any given spot must be ascertained.

For this purpose it is necessary (a) to alter the hour given in Table E. to suit the longitude of the given place; (b) to convert the mean time of the table into apparent (or true) time; (c) to find the moment of sunrise or sunset on the day and at the place in question.

- (a) The time-correction for longitude is plus one minute of time for every 15' of longitude east of, or greater than, the base meridian (75° 46'), and minus one minute of time for every 15' west of, or less than, the same. Four minutes of time to one degree of longitude.
- (b) Table F. gives the equation of time in minutes, for intervals of five days throughout the year for the period covered by the principal table. (If it is at any time desired to convert apparent time into mean time, this can be done by using the table with reversed signs.)
- (c) Table G., copied from Raper's Practice of Navigation Table 26, but with the days of the year added to the sun's declination in degrees in order to facilitate work, gives the hours and minutes of sunrise and sunset in different latitudes on different days. I have ventured to add the days of the year to this table, because there are no almanacks extant in India earlier than those of the last few decades to which reference can be made in order to ascertain the sun's declination on any given day. It is true that the inclusion of the days of the year introduces, in distant epochs, small errors due to various causes, such as the change in the obliquity of the ecliptic, and of the perihelion point of the earth's orbit. But the sum of these would not amount to much; and if the little Table given in Rule 5 below be used, which brings Old Style dates into harmony with the present Calendar, these slight variations in the sun's declination may well be left out of account.

Another variation is caused by the fact that, since the moon is actually at the full at mid-eclipse, she is not quite full at the beginning, and she is a little past the full at the end of the eclipse. For localities such as India, no part of which is very far distant from the equator, this variation, even in the extreme case of an eclipse prolonged to a duration of four hours, would not amount to more than four minutes.

If all these variations operated in one direction the time-difference so caused might of course amount to several minutes, but it often, indeed generally, happens that one cause of variation works against and helps to annul another. At the worst they only affect the question of the visibility at the last few moments of an eclipse ending when the moon is just rising, or the first few moments of an eclipse beginning when the moon is just setting; and since the difference is then compensated by the effects produced by refraction, it is not necessary to consider them. The beginning or ending of an eclipse cannot be generally observed nearer than one minute, and sometimes two or three minutes of time, even under the most favourable conditions.

I have thought it advisable to give a list of eclipses as fixed by the Nautical Almanack since A.D. 1767, the date of its first publication. These may be compared with the data obtained from Oppolzer's Canon. I have reduced the actual figures given in the Nautical Almanack to our requirements (1) by altering the hour to suit the Indian system, according to which the day begins at mean sunrise (6 A.M.) on the meridian of Lanka, (2) by applying the time-difference between the longitudes of Greenwich and Lanka, and, (3) up to the year 1834, by applying the daily equation of time. Since 1834 the Nautical Almanack figures are themselves given in

<sup>1</sup> Probably not more than half a degree, or two minutes of time, for two years differing as much as possible. (Professor Turner.)

It may be as well to point out that these Tables are applicable not only to India, but to all places in the world lying between N. Lat. 0° and 39°. To use them for mean or clock time for any part of the globe, it is only necessary to apply to the figures given in Table E. the time-difference for longitude (4 minutes to a degree) east or west of our base-meridian, which is, as stated, 75° 46′ east of Greenwich. This gives the hour of eclipse by the clock on any meridian in latitude 0°. For apparent time Table F. is applicable to all parts of the world. To find the hour of sunset or sunrise Table G. may be used for any place between the equator and N. Lat. 39°.

#### RULES, AND USE OF TABLES.

Rule I. Note the details regarding the eclipse given in Table E.

On any date and for any place in India the eclipse was invisible if it occurred altogether between 1.51 and 9.22.

If its beginning or ending overstep these limits the eclipse may have been visible at some place in India. In such case it must be examined.

Rule II. In case an examination is necessary take the latitude and longitude of the place in question. Table XI. of the "Indian Calendar" (p. exix) may be used, or a reliable map.

Rule III. Correct Table E. for longitude, thus;—Lanka longitude, or the longitude of the base meridian of the Tables, being 75° 46′ east of Greenwich, add one minute of time for every 15′ of longitude east of this, and deduct one minute of time for every 15′ of longitude west of it.

Rule IV. To find the apparent or true time of eclipse, apply to the figures given in E., the correction noted in Table F.

Rule V. Then consider the latitude of the place. The moment of the occurrence of the different phases of the eclipse will remain unaffected, but the visibility of the eclipse depends on the time of sunrise or sunset in this locality, and this varies with the latitude.

Table G. gives these hours of sunrise and sunset. But for Old Style dates a correction is necessary, which is supplied by the little Table below. It must be borne in mind that this

	OLD STYLE ADJUSTMENT FOR USE OF TABLE G.												
· .	A.D.												
500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	
1	2	3	3	4	5	6	6	7	8	9	9	10	
	N.B. No adjustment is necessary before A.D. 500, or after A.D. 1752.												

alteration of date is solely for use of Table G., the English date of eclipse remaining unaffected. Where necessary, therefore, add to the day given in Table E. the number of days noted in this sub-Table, and then use Table G. to ascertain the duration of daylight on the day of eclipse at the latitude in guestion.

#### EXAMPLES.

- 1. Eclipse of December 2, 1750. This began at 3 h. 32 m. after 6 A.M. and ended at 7 h. 16 m. It was therefore invisible in any part of India.
- 2. Eclipse of February 28, 1896. I select this because it can be tested by a reliable almanack. How was it at Madras? Work with Table H. It began at 17.19 and ended at 20.18. Nearly 11/10ths. of the disc were obscured.

Rule I. It was visible, clearly, in some part of India.

Rule III. Madras E. Long. 80° 13′ 30″ or + 18 m. of time. Apply this, and we have for the beginning 17.37, and for the ending 20.36. This corresponds with the entry in the Madras Asylum Press Almanack, viz., 11.37 P.M. on 28th, and 2.36 A.M. on 29th February.

There is no need to apply Rules IV. or V.

3. Eclipse of November 13, A.D. 300. How was it at Śrinagar in Kashmir?

It was total and ended at Lanka at 12.21 (Table E.) or 6 h. 21 m. P.M. Correct to apparent time (Table F.) (6 h. 21 m. + 17 m. =) 6 h. 38 m. P.M. Totality ended (11 h. 15 m. + 17 m. =) 11 h. 32 m., or 5 h. 32 m. P.M., apparent time. At Lanka therefore the eclipse was visible for only the last 38 m. of partial obscuration, sunset being at 6.0 P.M. But at Śrinagar (N. Lat. 34° 6′, E. Long. 74° 52′—see the "Indian Calendar" Table N1.—) the case was different. Correct for longitude.  $75^{\circ}.46'-74^{\circ}.52'=54'=4$  minutes of time. 6 h. 38 m.-4 m. = 6 h. 34 m. This then was the moment of the end of the eclipse. But the sun set (Table G.) at 5 h. 8 m. P.M., so that the eclipse was visible at Śrinagar for an hour and twenty-six minutes after sunset. Totality ended at [5 h. 32 m. P.M.-4 m. (Long.) =] 5 h. 28 m. P.M., so that at Śrinagar the eclipse was total for twenty minutes after sunset.

4. Eclipse of November 25, A.D. 364. This began at Lanka 23.8, or 5 h. 8 m. A.M., mean time on 26th (civil reckoning); + 10 m. for apparent time (*Table F.*), 5 h. 18 m. A.M. It was therefore visible at Lanka for 42 m. before sunrise. But at Rangoon (Long: 96° 17′, diff. + 1 h. 22 m.) the eclipse began at apparent time, 6 h. 40 m. A.M., while (*Table G.*) the sun rose (Lat. 16° 46′) at 6 h. 27 m. A.M. Here the eclipse was invisible.

#### ADDITIONS TO THE "INDIAN CALENDAR."

#### NUMERALS EXPRESSED BY WORDS.

DATES in Indian inscriptions are often expressed by words, each word representing a numeral, and selected for that purpose according to its meaning. Thus, bhû or chandra stood for the figure 1, since all the world knows that there is only one earth or one moon. Similarly paksha "wing", or akshi "eye", conveyed at once the idea of two; trijagat, the "three worlds", three; Pâṇḍava, five; avatâra, ten; and so on. Extending the system with considerable ingenuity, a large number of figures were represented.

The commoner words are given in the enclosed list; which contains, first, the words given by Burnell (Br.) in his South-Indian Palæography, including those mentioned by Al-Bîrûnî and C. P. Brown, then those added by Dr. Bühler (Bh.) (Grundriss der Indo-Arischen Philologie und Altertumskunde, Indische Palæographie, pp. 80, 81), lastly some supplied to me by Professor Kielhorn. (K.)

Units are generally written first, then tens, hundreds, and thousands. Thus Rishi-naga-kh-endu-sanvatsara is the year 1087, guna-sastra-kh-endu-ganita sanvatsara is 1063. 7 8 0 1

- o. (Br.) Abhra, âkâśa, ambara, ananta, gagaṇa, kha, śûnya, viyat, vyoman. (K.) Dyu, nabhas, vindu, Vishṇupada.
- I. (Br.) Âdi, bhû, chandra, dharâ, dharaṇî, indu, kshiti, kshmâ, nâyaka, pitâmaha, pṛithivî, raśmi, rûpa, śaśânka, śaśin, śîtâmśu, soma, tanu, urvarâ, vasudhâ. (Bh.) Mâhî, Sitaraśmi. (K.) Atrinayanaja, avani, chandramas, dhâtrî, jagatî, kshapeśvara, kshauṇî, kshoṇî, ku, mṛigânka, sudhâmśu, vasumatî, vidhu.
- 2. (Br.) Akshi, Aśvin, bâhu, Dasra, drishţi, kara, karna, kuţumba, lochana, netra, paksha, ravichandrau, Yama, yamala. (Bh.) Nayana. (K.) Chakshus.
- 3. (Br.) Agni, dahana, guṇa, hutâśana, jvalana, loka, pâvaka, Râma, sahodara, śikhin, tapana, tri, trigata, trigana, trijagat, trikâla, trilochana, trinetra, vahni, vaiśvânara. (Bh.) Hotri. (K.) Anala, Haranayana, śakti, udarchis, veda, vishṭapa.
- 4. (Br.) Abdhi, bandhu, dadhi (?), diś, jalanidhi, jalâśaya, koshtha, krita, sâgara, samudra, udadhi, veda, yuga. (Bh.) Aya or âya, śruti, jala, jaladhi. (K.) Ambhôdhi, ambudhi, amburâśi, arṇava, Chaturânanavadana, vanadhi, vâridhi, vârindhi, sindhu.
- śara, sâyaka, suta, tata, vâṇa, visikha. (Bh) Bâṇa, vishaya. (K) Tryakshamukha.

- 6. (Br.) Anga, ari, darśana, masardha, mata, raga, rasa, ritu, śastra, tarka. (Bh.) Kaya.
- 7. (Br.) Adri, aga, aśva, Atri, chhandas, dhâtu, kalatra, mahîdhara, muni, naga, parvata, rishi, śaila, svara. (Bh.) Dhî. (K.) Giri, haya, loka, pâtâla, sagara, sâgara, turamgama.
- 8. (Br.) Ahi, bhûtî, dantin, gaja, ibha, mangala, nâga, sarpa, vasu. (Bh.) Anushṭubh, siddhi. (K.) Mûrti, naga, tanu.
- 9. (Br.) Anka, antara, chhidra, dvâra, go, graha, nanda, nidhi, pavana, randhra. (K.) Crahagana, nidhâna.
  - 10. (Br.) Âśâ, avatâra, diś, karman, Râvaṇaśiras.
  - 11. (Br.) Akshauliinî, Îśvara, lâbha, Mahâdeva, Rudra. (Bh.) Îśa, Śiva. (K.) Bhava.
  - 12. (Br.) Aditya, arka, bhânu, mâsa, sahasrâinsu, sûrya, vyaya. (K.) Dyumani.
  - 13. (Br.) Kâma, Kâmadeva, Manmatha, viśva. (Bh.) Aghosha, atijagati.
  - 14. (Br.) Indra, Manu, loka. (K.) Amarendra, pûrva, ratna.
  - 15. (Br.) Ahan, paksha, tithi.
  - 16. (Er.) Ashți, bhûpa, kalâ, nripa.
  - 17. (Br.) Atyashti.
  - 18. (Br.) Dhriti.
  - 19. (Br.) Atidhriti.
  - 20. (Br.) Kriti, nakha.
  - 21. (Br.) Svarga, utkriti.
  - 22. (Br.) Jâti.
  - 24. (Br.) Jina.
  - 25. (Br.) Tattva.
  - z6. (Br.) Utkriti.

The following are said to occur only in documents of late date. (Br.)

- 27. (Br.) Nakshatra. (Bh.) Bhasamûha.
- 32. (Br.) Danta, Rada.
- 33. (Br.) Deva. (Bh.) sura.
- 34. (Br.) Tâna.
- 40. (Br.) Naraka.
- 49. (Br.) Tâna.

#### NUMERALS EXPRESSED BY LETTERS OR SYLLABLES.

[Dr. Burnell's South-Indian Palacography pp. 65, 79, 80, from which most of this note is taken; Dr. Bühler's Grundriss der Indo-Arischen Philologie und Altertumskunde, Indische Palacographie, pp. 82, 83; Indian Antiquary, II, pp. 361-2.]

A system of notation by which numerals are expressed by letters of the alphabet is often called the *Katipayâdi* method, from *katipaya*, "a certain number", "so many".

Three systems are known.

A. The system of Aryabhatta, which he used in his treatises on astronomy, but which does not appear to have been adopted by any other writer, or in inscriptions. It is unnecessary to go into this. Professor Kern has edited Âryabhatta's text.

B. The chronogram system. This seems to have originated in Southern India, and has been constantly used in Malabar, Travancore, and the South Tamil country. According to it the consonants of the Sanskrit alphabet have values given to them, thus:—

k 1	kh 2	g 3	gh 4	ń 5						ñ
ţ	țh 2	d 3	ḍh 4	ņ 5	t 6	tl 7	1 7	d 8	dh 9	n O
			p 1	ph 2	b 3	bh 4	m 5			
	у 1	r 2	1 3	v 4	ś 5	sh 6	s 7		! 9	

When double letters are used, the last pronounced consonant only counts. The order of the numbers is from right to left; thus Vishnu = 54;  $Badhn\hat{a}ti$  annamsasarpi = 17,750,603.

By this system dates may be expressed in words having a connected meaning, and it closely resembles the Semitic system so often used by the Muhammadans. It is also used in Southern India as a memoria technica for the contents of the Vedas.

Burnell states that the oldest use of it with which he was acquainted was in Shadguru-sishya's commentary on the Rigveda Anukramanika (1187 A.D.). It is also used as an aid to remember the rules for calculating horoscopes, and for astronomical tables.

- C. The letter systems. There are several of these, mostly used for marking the pages and palm-leaves of MSS. They are in use in Burmah and Ceylon as well as in India.
- (a) According to one system the consonants, with the short a vowel added to each, are used in order for representing the numerals I to 34; then the series is repeated with long  $\hat{a}$ , giving numbers to 68; and so on with the twelve vowels. The series runs—ka, kha, ga, gha,

 vowels to each consonant and enables the series to run as far as  $(16 \times 34 =) 544$ . This results, of course, in the letters having a different value from those of the former system; e.g.,  $k\hat{a}$  in the first (a) system = 35, in the second (b) system = 2.

Dr. Bühler states that in Siam and Ceylon there are instances of this last system being prolonged, after the exhaustion of all the syllables ending with lah (= 408 or 544 as the case may be), by a repetition of the whole system; noted as 2 ka,  $2 k\hat{a}$ ,  $2 k\hat{i}$ , etc. . . . . . which would enable numerals to be represented to any extent.

These methods are convenient as numerals for arranging papers or pages in order, but are manifestly useless for simple notation. Thus, if a loose page is picked up bearing the syllable  $m\hat{u}$ , it can at once be put in its proper place; but no one could say without reference to a table what actual number  $m\hat{u}$  represents.

Numbers in India are often abridged, as in England. We say for instance of the pages of a book "21-2", "243-4". This must not be lost sight of, even in the matter of inscriptions and their dates, remembering that in Europe there is sometimes a similar abbreviation. People speak of the year "ninety-eight", meaning "1798".

There is a system in use in Nepâl and amongst the Jains of N. India where syllables are used in an apparently arbitrary manner, but it is not known in the south. Dr. Burnell treats of this in his "South-Indian Palæography" (p. 65). The series is used for numbering pages of books, but I am not aware whether it has ever been employed for chronological purposes.

#### DETERMINATION OF NAKSHATRAS AND YOGAS.

[See Ind. Calendar, Arts. 133, 158, 159, pp. 64-65, 97-98.]

Dr. Schram proposes, in the *Indian Antiquary* for October 1896 (pp. 287-288), a simplification of the method employed by us for the determination of nakshatras and yogas.

He gives the following table by which (n), the nakshatra-index, and (y) the yoga-index may be found at once from the figures for (t) and (c); thus (n) = (t) + (s). Take down (t), and find (s) from the table given below, by observing the figure given for (c). In the example given by us in Art. 158 we have (t) = 1463, (c) = 439. From the first column of the following table, observing the difference between consecutive values of (s) (cols. 2, 3) and using the auxiliary table, (s) is found to be 1559. Add (t) to (s) and we have 3022 = (n). (y) = (s) + (n) (Art. 133), and both these quantities are found from the table.

This table may be styled Table VII A of the "Indian Calendar". It is reprinted by kind permission of the author, and of the editor of the "Indian Antiquary".

TABLE VII A.

					SPF AT						
Arg.	s. Diff.	Arg.	5.	Diff.		Arg.	s.	Diff.	 Arg.	s.	Diff.
c. 0 10 20 30 40 50 60 70 80 90 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250	5. Diff.  7147 103  7250 104  7354 104  7458 104  7662 104  7666 103  7769 104  7873 103  8079 103  8182 103  8285 103  8285 103  8388 103  8491 102  8593 103  8696 102  8798 102  8900 101  9001 102  9103 101  9204 101  9305 101  9406 101  9507 100  9507 100  9707	250 260 270 280 290 300 310 320 330 340 350 360 370 380 400 410 420 430 440 450 450 450 490 500	5. 9707 9807 9907 6 105 204 303 401 500 598 696 793 891 988 1085 1182 1279 1376 1473 1569 1666 1762 1858 1954 2050 2147	100 100 100 99 99 99 98 99 98 99 98 97 97 97 97 97 97 97 97 97 97 97		5. 500 510 520 530 540 550 560 570 580 600 610 620 630 640 650 670 680 670 680 670 720 730 740 750	3. 2147 2243 2339 2435 2531 2628 2724 2821 2917 3014 3111 3208 3305 3402 3500 3598 3695 3695 3794 3892 3990 4089 4188 4287 4387 4486 4586	96 96 96 96 96 97 96 97 97 97 97 97 97 98 98 98 99 99 99	750 760 760 770 780 790 800 810 820 830 840 850 870 880 900 910 920 930 940 950 960 970 980 990	5.4586 4686 4787 4887 4988 5089 5190 5292 5394 5495 5598 5700 5802 5905 6008 6111 6214 6317 6421 6524 6628 6731 6835 6939 7048 7147	Diff.  100 101 100 101 101 101 102 102 103 103 103 103 104 103 104 104 104 104

#### AUXILIARY TABLE.

Dir.			L	ast figur	c of Ar	gument	c.		
of s.	1	2	3	4	5	6	7	8	9
ļ					Add.			~	
104	. 10	-21	31	42	52	62	73	83	94
103	. 10	21	31	41	52	62	72	82	93
102	. 10	20	31	41	51	61	71	82	92
101	10	20	30	40	51	61	71	81	91
100	10	20 .	30	40	50	60	70	80	90
99	10	20	30	40	50	59	69	79	89
- 98	. 10	20	29	39	49	59	69	78	88
97	10	19	29	39	49	58	68	78	87
96	10	19	20	38	48	58	67	77	86

#### ADDITION TO THE "INDIAN CALENDAR" TABLE I.

The commencement of the luni-solar year (cols. 19 to 25) throughout Table I of the "Indian Calendar" was calculated for the system of true intercalations of months (cols. 8 to 12). The use of the mean system of intercalations (cols. 8a to 12a) will, in years following those where an intercalation has taken place by the mean system but not by the true system, throw the initial date a month later than that given in cols. 19 to 25. In such years the invariable intercalation of a month by the true system, when none takes place by the mean system, brings the initial dates under both systems together again in the third year. The following is a list of initial dates (cols. 19 to 25) to be substituted for the present entries in Table I in the years mentioned, when the mean system of intercalation of months (cols. 8a to 12a) is used.

The figures already given in Table I, however, may equally well be used if care is taken to remember the number of the month. Thus—suppose that it is necessary to ascertain a date in Chaitra of Kali 3412, where the mean system of intercalations was used. Noting that the month was called "Vaiśâkha I" under the "true" system, the calculation may be made for Vaiśâkha I, using the figures already given in Table I.

L	NCURRENT EAR.	III. COMMENCEMENT OF THE LUNI-SOLAR YEAR. (Civil day of Chaitra Śukla 1st.)							
				Moon	's age.				
Kali.	A. D.	Day and Month A. D.	Week day.	Lunat. parts elapsed. (1.)	Tithis elapsed.	a.	i.	<i>c</i> .	
1	5	19	20	21	22	23	24	25	
3412	310-11	18 Mar. (77)	0 Sat	58	·174	52	795	282	
3431	329-30	18 Mar. (77)	3 Tues	180	.540	157	659	282	
3450	*348-49	17 Mar. (77)	5 Thur	78	.234	9924	486	279	
3458	*356-57	19 Mar. (79)	3 Tucs	141	•423	84	602	285	
3477	375-76	19 Mar. (78)	5 Thur	52	.156	9851	430	282	
3496	394-95	19 Mar. (78)	1 Sun	232	-696	9956	293	282	
3515	413-14	19 Mar. (78)	4 Wed	319	.957	62	157	283	
3526	*424-25	17 Mar. (77)	2 Mon	69	-207	8	904	278	
3534	*432-33	19 Mar. (79)	0 Sat	327	•981	168	20	283	
3553	451-52	20 Mar. (79)	3 Tucs	320	-960	273	884	283	
3572	470-71	19 Mar. (78)	5 Thur	45	.135	40	711	281	
3580	478-79	21 Mar. (80)	3 Tues	218	.654	200	828	286	
3591	489-90	19 Mar. (78)	1 Sun	223	.669	146	575	281	
3599	497-98	21 Mar. (80)	6 Fri	318	•954	306	691	286	
3618	*516-17	20 Mar. (80)	1 Sun	196	-588	72	519	284	
3637	535-36	20 Mar. (79)	3 Tues	95	-285	9839	346	281	
3656	554-55	20 Mar. (79)	6 Fri	222	.666	9945	210	281	
3675	573-74	20 Mar. (79)	2 Mon	250	.750	51	73	282	
3694	*592-93	20 Mar. (80)	5 Thur	243	•729	156	937	282	
3702	*600-1	21 Mar. (81)	2 Mon	133	.399	9977	17	284	

1	NCURRENT YEAR.	III.	COMMENCEMENT OF (Civil day of Chai			YEAR.		
Kali.	A. D.	Day and Month A. D.	Week day.	Lunat. parts elapsed. (2.)	Tithis on elapsed.	<i>a</i> .	<i>b.</i>	c.
1	5	19	20	21	22	23	24	25
3713 3721	611–12 619–20	21 Mar. (80)	1 Sun	270 129	·810 ·387	262 83	800 881	282 285
3732	630-31	20 Mar. (79)	3 Tues	69	•207	29	628	279
3740	638-39	22 Mar. (81)	1 Sun	190	•570	189	744	285
3759	657-58	21 Mar. (80)	3 Tues	37	•111	9956	571	282
3778	*676-77	21 Mar. (81)	6 Fri	258	.774	61	435	282
3797	695-96	21 Mar. (80)	1 Sun	109	•327	9828	262	280
3816	714-15	21 Mar. (80)	4 Wed	175	•525	9934	126	280
3835	733-34 741-42	21 Mar. (80)	0 Sat	170	.510	39	989	280
3843 3854	*752-53	22 Mar. (81)	4 Wcd	61 175	·183 ·525	9860 145	70	283 281
3862	*760-61	22 Mar. (82)	0 Sat	49	147	9966	853 933	283
3873	771-72	22 Mar. (81)	6 Fri	254	.762	250	717	281
3881	779-80	23 Mar. (82)	3 Tucs	79	.237	72	797	283
3900	798-99	23 Mar. (82)	6 Fri	200	-600	177	660	284
3919	817-18	22 Mar. (81)	1 Sun	76	-288	9944	488	281
3938	*836-37	22 Mar. (82)	4 Wed	303	.909	50	351	281
3957	855-56	22 Mar. (81)	6 Fri	85	.255	9817	179	279
3965	863-64	24 Mar. (83)	4 Wcd	252	.756	9977	295	284
3976	874-75	22 Mar. (81)	2 Mon	100	-300	9922	42	279
3984	882-83	23 Mar. (82)	6 Fri	⊙-19	<b></b> ∙57	9743	122	282
3995	893-94	22 Mar. (81)	5 Thur	91	273	28	906	279
4003	901-2	23 Mar. (82)	2 Mon	⊙–23	- 69	9849	986	282
4014	*912-13	22 Mar. (82)	1 Sun	136	•408	134	769	280
4022	*920-21	23 Mar. (83)	5 Thur	⊙–17	<b></b> -51	9955	850	282
4041	939-40	24 Mar. (83)	1 Sun	65	•195	60	713	282
4060	958-59	24 Mar. (83)	4 Wed	241	.723	166	577	283
4079	977-78	23 Mar. (82)	6 Fri	160	•480	9933	404	280
4098	*996-97	23 Mar. (83)	2 Mon	318	.954	38	268	280
4106	*1004-5	24 Mar. (84)	6 Fri	115	•345	9860	348	283
4117	1015-16	23 Mar. (82)	4 Wed	25	•75	9805	95	278
4125	1023-24	25 Mar. (84)	2 Mon	242	.726	9965	211	283
4136	1035-35	23 Mar. (82)	0 Sat	15	•45	9911	958	278
4144 4155	1042-43 1053-54	25 Mar. (84)	5 Thur3 Tues	276 32	·828	71 17	75	283
4163	1061-62	' '			1		822	278
4182	*1080-81	25 Mar. (84)	1 Sun	264 290	·792 ·870	176 282	939	283 284
4201	1099-1100	25 Mar. (84)	6 Fri	89	.267	49	802 629	281
	2000 1100	-5 2/4/2 (02)	~		~~,	***	020	~01

<sup>⊙</sup> See Text, Art. 101 above, para. 2.

		i -

А. D.	Hindu Month	Time		from Laûl en as 6 A		unrise,	Number of
Year, Month,	and	Greatest phase.	Begin-	Perio	od of curation.	End	twelfths eclipsed.
and Day.	Current Śaka Year.	[i.c. mo- ment of	ning of Eclipse,	Begin-	End.	of Eclipse.	["t."=total
and Day.	["w, m, i." = with mean intercalations.]	fallmoon] h. m.	h. m.	h. m.	h. m.	h. m.	eclipse.]
1	2	3	4	5	6	7	8
300 May 20 Mon. 300 Nov. 13 Wed. 301 May 9 Fri. 301 Nov. 3 Mon. 303 Mar. 19 Fri.	Jyeshtha.       223         Mûrgaśîrsha.       223         Jyeshtha.       224         Kûrttika, (w. m. i.)       Mûrgaśîrsha.       224         Chaitra.       226	9 56 10 34 10 41 1 3 20 52	8 5 8 47 9 44 0 42 19 6	9 6 9 53 — 20 16	10 46 11 15 — 21 28	11 47 12 21 11 38 1 24 22 38	t. t. 3·1 0·4 t.
303 Sept. 12 Sun. 304 Mar. 8 Wed. 304 Ang. 31 Thur. 305 Aug. 21 Tucs. 306 July 12 Fri.	Âsvina       226         Chaitra       227         Bhâdrapada, (w. m. i.) Bhâdrapada II       227         Bhâdrapada       228         Śrâvaņa       229	18 13 13 28 19 50 4 27 12 8	16 34 11 43 18 3 4 4 11 4	18 6 12 54 19 10	18 20 14 2 20 30 —	19 52 15 13 21 37 ·4 50 13 12	t. t. t. 0·5 4·0
307 Jan. 5 Sup. 307 July 2 Wed. 307 Dec. 25 Thur 308 June 20 Suu. 308 Dec. 14 Tues.	Mågha.       229         Åshådha       230         Pausha       230         Åshådha       231         Pausha       231	15 40 4 30 18 52 15 58 5 16	13 56 2 39 17 7 14 34 4 55	15 9 3 40 18 18 —	16 11 5 20 19 26	17 24 6 21 20 37 17 22 5 37	t. t. t. 7·6 0·4
310 Apr. 30 Sun. 310 Oct. 24 Tues. 311 Apr. 19 Thur. 311 Oct. 14 Sun. 312 Apr. 8 Tues.	Vaiśâkha II, (w. m. i.)       Vaiśâkha.       233         Kârttika.       234         Vaiśâkha.       234         Kârttika.       234         Vniśâkha.       235	7 2 23 8 14 37 6 10 4 47	5 31 21 24 12 47 4 24 3 57	22 38 13 50 5 34	23 38 15 24 6 46	8 38 24 52 16 27 7 56 5 37	9·2 t. t. t. 2·4
313 Feb. 27 Fri. 314 Feb. 16 Tues. 314 Aug. 12 Thur. 315 Feb. 6 Sun. 315 Aug. 1 Mon.	Phâlguna.       235         Phûlguna.       236         Bhâdrapada.       237         Phûlguna.       237         Śrâvaṇa.       238	12 56 24 46 3 29 5 20 19 27	12 17 22 59 1 43 3 41 17 42	24 4 2 54 - 18 54	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	13 35 26 33 5 15 6 59 21 12	1·4 t. t. 11·9 t.
317 June 11 Tucs. 317 Dec. 5 Thur. 318 May 31 Sat. 318 Nov. 24 Mon. 319 May 20 Wed.	Âshâdha       240         Pausha       240         Jyeshtha       241         Mârgasîrsha       241         Jyeshtha       242	13 35 3 56 16 18 19 29 17 14	12 19 2 11 14 26 17 42 16 4	3 22 15 26 18 48	$\begin{array}{cccc}  & & & & & & & & & & & & & & & & & & &$	14 51 5 41 18 10 21 16 18 24	6·0 t. t. t. 4·8
319 Nov. 14 Sat. 321 Mar. 30 Thur. 321 Sept. 22 Fri. 322 Mar. 19 Mon. 322 Sept. 12 Wed.	Mârgasîrsha       242         Chaitra       244         Âśvina.       244         Chaitra       245         Âśvina.       245	9 43 4 48 25 33 21 27 3 19	9 20 3 4 23 56 19 41 1 31	4 17 20 49 2 36	$ \begin{array}{cccc}  & - & & \\  & 5 & 19 & & \\  & - & & \\  & 22 & 5 & \\  & 4 & 2 & & \\ \end{array} $	10 6 6 32 27 10 23 13 5 7	0:5 t. 11:3 t. t.
323 Sept. 1 Sun. 324 July 22 Wed. 325 Jul. 15 Fri. 325 July 12 Mon. 326 Jan. 5 Wed.	Bhâdrapada, (w. m. i.)       Bhâdrapada II.       246         Śrâvaṇa.       247         Mâgha.       248         Mâgha.       248	12 17 19 43 23 35 11 51 3 14	11 37 18 51 21 52 10 1 1 29	$\begin{bmatrix} - \\ 23 & 7 \\ 11 & 3 \\ 2 & 39 \end{bmatrix}$	24 3 12 39 3 49	12 57 20 35 25 18 13 41 4 59	1·5 2·6 t. t. t.
326 July 1 Fri. 326 Dec. 25 Sun. 328 May 10 Fri. 328 Nov. 4 Mon. 329 Apr. 29 Tues.	Âshâdha       249         Pausha       249         Jyeshtha       251         Mârgaśirsha       251         Vaiśâkha II, (w. m. i.) Vaiśâkha       252	22 53 14 4 13 48 7 40 21 55	21 22 13 38 12 24 5 57 20 4	7 14 21 5	- - 8 6 22 45	24 24 14 30 15 12 9 23 23 46	9·2 0·6 7·6 t. t.
329 Oct. 24 Fri. 330 Apr. 19 Sun. 331 Mar. 10 Wed. 332 Feb. 28 Mon. 332 Aug. 22 Tues.	Kârttika       252         Vaiśâkha       253         Chaitra       254         Phâlguna       254         Bhâdrapada       255	14 15 12 27 21 1 8 40 11 18	12 29 11 25 20 38 6 54 9 35	13 38 — 8 2 10 50	14 52 — 9 18 11 46	16 1 13 29 21 24 10 26 13 1	t. 3·8 0·5 t. t.

	Hindu Month	ľ	Time measured from Lanka mean sunrise, taken as 6 A.M.					
A. D. Year, Month,	and	Grea pha	se.	Begin-	<del></del>	od of	End	twelfths cclipsed.
and Day.	Current Śaka Year.  [" $w, m, i$ ." = with mean intercalations.]		mo- it of 100n]	ning of Eclipse.	Begin- ning.	End.	of Eclipse.	["t." = total
1	2	h.		h. m.	h. m.	h. m.	h. m.	eclipse.]
333 Feb. 16 Fri.	Phâlguna	12	59	11 . 19	12 43	13 15	14 39	t.
333 Aug. 12 Sun. 335 June 22 Sun. 335 Dec. 16 Tues.	Bhâdrapada       256         Âshûdha       258         Pausha       258	3 20 12	17 18 51	1 30 19 13 11 6	$\begin{bmatrix} 2 & 38 \\ -12 & 17 \\ 0.1 & 2.2 \end{bmatrix}$	3 56  13 25	5 4 •21 23 14 36	t. 4·1 t.
336 June 10 Thur. 336 Dec. 5 Sun.	Ashûdha	22 4	40 25	20 49 2 38	21 50 3 44	23 30 5 6	24 31 6 12	t. t.
337 May 30 Mon. 337 Nov. 24 Thur. 339 Apr. 10 Tues.	Jyeshtha II, (w. m. i.)       Jyeshtha       260         Mûrgasîrsha       260         Yaisâkha       262	23 18 12	46 27 36	22 25 18 6 10 54	  12 14	12 58	25 7 18 48 14 18	7·0 0·4 t.
339 Oct. 4 Thur. 340 Mar. 30 Sun.	Âśvina II, (w. m. i.)       Kârttika	9 5	8 22	7   33   34	 4 40	 6 4	10 43 7 10	10·6 t.
340 Sept. 22 Mon. 341 Sept. 11 Fri.	Aśvina       263         Ąśvina       264	11 20 3	6 17 29	9 16 19 26 2 50	10 20	11 52	12 56 21 8	t. 2·5 1·4
342 Aug. 3 Tues. 343 Jan. 27 Thur.	Srâvaṇa II, (w. m. i.)       Bhâdrapada I 265         Mâgha	7	32	5 50	7 8	7 56	9 14	t.
343 July 23 Sat. 344 Jan. 16 Mon. 344 July 12 Thur.	Śrâvana 266 Mâgha 266 Śrâvana 267	19 11 5	17 38 51	$egin{array}{cccc} 17 & 28 \\ 9 & 52 \\ 4 & 15 \end{array}$	$\begin{bmatrix} 18 & 34 \\ 11 & 2 \\ \end{bmatrix}$	20 0 12 14	$egin{array}{c ccc} 21 & 6 \\ 13 & 24 \\ 7 & 27 \\ \end{array}$	t. t. 11·0
345 Jan. 4 Fri. 346 May 21 Wed.	Mågha         267           Jyeshtha         269	22 20	48 31	22 22 19 16		_	23 14 21 46	0·6
346 Nov. 15 Sat. 347 May 11 Mon.	Mûrgasîrsha         269           Jyeshtha         270	16 5	12 10	14 30 3 18	15 48 4 19	16 36 6 1	17 54 7 2	t. t.
347 Nov. 4 Wed. 348 Apr. 29 Fri. 350 Mar. 10 Sat.	Mûrgaśîrsha       270         Vaiśâkha       271         Chaitra       273	22 20 16	22 4 25	20 36 18 51 14 40	$\begin{bmatrix} 21 & 44 \\ - & 51 \end{bmatrix}$	$\begin{bmatrix} 23 & 0 \\ - & 59 \end{bmatrix}$	24 8 21 17 18 10	t. 5·4 t.
350 Sept. 2 Sun. 351 Feb. 27 Wed.	Bhâdrapada II, (w. m. i.) Âśvina I	19 20	13 27	17 32 18 44	18 54 20 2	19 32 20 52	20 54 22 10	t. t.
351 Aug. 23 Fri. 352 Aug. 12 Wed. 353 July 3 Sat.	Bhûdrapada.       274         Bhâdrapada.       275         Âshâdha II.       276	11 3 3	15 27 2	$egin{array}{cccc} 9 & 27 \\ 3 & 1 \\ 2 & 14 \\ \end{array}$	10 32	11 58	13 3 .3 53 3 50	t. 0·6 2·2
353 Dec. 26 Sun. 354 June 22 Wed.	Pausha. 276 Âshâḍha 277	21 5	41 4	19 56 3 14	21 8 4 16	22 14 5 52	23 26 6 54	. t.
354 Dec. 16 Fri. 355 June 11 Sun.	Pausha.       277         Âshâdha.       278	13 6	21 20	11 34 4 51	12 40	14 2	15 8 7 49	t. 8·7
355 Dec. 6 Wed. 357 Apr. 20 Sun.	Pausha.       278         Vaiśâkha.       280	3 20	10 20	2 49 18 42	_		3 31 21 58	11.6
357 Oct. 14 Tues. 358 Apr. 10 Fri.	Kûrttika       280         Vaiśâkha       281         Âśvina II, (w. m. i.) Kûrttika       281	16 13	50 8	15 17 11 18	12 21	13 55	18 23 14 58 20 51	10·1 t. t.
359 Mar. 31 Wed.	Chaitra	19 2	11	17 11 50	18 14	19 48	.2 32	0.4
359 Sept. 23 Thur. 361 Feb. 6 Tues. 361 Aug. 3 Fri.	Aśvina.       282         Phâlguna.       283         Śrâvaṇa, (w. m i.) Śrâvaṇa II       284	$\begin{array}{c} 4 \\ 15 \\ 2 \end{array}$	$\frac{23}{14}$	3 25 13 33 1 .1	$\begin{bmatrix} -14 & 54 \\ 2 & 9 \end{bmatrix}$	15 34 3 25	5 21 16 55 4 33	3·2 t. t.
362 Jan. 26 Sat. 362 July 23 Tues.	Mâgha.       284         Śrâvaņa       285	19 12	54 51	18 8 11 11	19 16 12 39	20 32 13 3	21 40 14 31	t. t.
363 Jan. 16 Thur. 364 June 1 Tues.	Mågha	3	31 12	7 0 2 8			8 2 4 16	. 0.9 4.0 t.
364 Nov. 25 Thur. 365 May 21 Sat. 365 Nov. 15 Tues.	Margasirsha       287         Jyeshtha       288         Margasirsha       288	24 12 6	50 21 30	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{c cccc} 24 & 26 \\ 11 & 29 \\ 5 & 52 \end{array}$	$\begin{bmatrix} 25 & 14 \\ 13 & 13 \\ 7 & 8 \end{bmatrix}$	26 32 14 13 .8 16	. t.

	Hindu Month	Time		from Lañl en as 6 A		unrise,	Number of
A. D.	and	Greatest phase.	Begiu-		od of curation.	End	twelfths
Year, Month,	Current Śaka Year.	[i.e. mo- ment of	ning of Eclipse.	Begin-	End.	of Eclipse.	eclipsed. ["t."=total
and Day.	["w.m.i." = with mean intercalations.]	fallmoon) h. m.	h. m.	ning.	h. m.	h. m.	eclipse.]
1	2	3	4	5	6	7	8
366 May 11 Thur. 366 Nov. 4 Sat. 368 Mar. 20 Thur. 368 Sept. 13 Sat. 369 Mar. 10 Tues.	Jyeshtha         289           Mûrgasirsha         289           Chaitra         291           Âśvina         291           Chaitra         292	3 32 6 15 23 53 3 21 3 44	2 12 6 0 22 10 1 42 1 59	23 28 - 3 10	24 18 - 4 18	4 52 6 30 25 36 5 0 5 29	6·9 0·2 t. 11·9 t.
369 Sept. 2 Wcd. 370 Aug. 23 Mon. 371 July 14 Thur. 372 Jan. 7 Sat. 372 July 2 Mon.	Bhâdrapada, (w. m. i.) Aśvina I.       292         Bhâdrapada.       293         Śrâvana.       294         Mâgha.       294         Âshâdha II, (w. m. i.) Âshâdha.       295	19 18 11 12 9 48 6 31 11 30	17 28 10 29 9 27 4 47 9 42	18 32 — 5 59 10 47	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	21 8 11 55 10 9 8 15 13 18	t. 1·7 0·4 t. t.
372 Dec. 26 Wed. 373 June 21 Fri. 373 Dec. 16 Mon. 375 May 2 Sat. 375 Oct. 25 Sun.	Pausha.       295         Âshāḍha       296         Pausha       296         Vaiśākha II, (w. m. i.)       Vaiśākha       298         Kârttika       298	22 14 12 55 11 53 3 59 24 40	20 27 11 20 11 32 2 26 23 8	21 32 — — — —	22 56 — — — —	24 1 14 30 12 14 5 32 26 12	t. 10·7 0·4 10·0 9·7
376 Apr. 20 Wed. 376 Oct. 14 Fri. 377 Apr. 10 Mon. 377 Oct. 3 Tues. 379 Feb. 17 Sun.	Vaiśâkha.       299         Kârttika.       299         Vaiśâkha.       300         Âśvina, (w. m. i.) Kârttika.       300         Phâlguna.       301	20 45 2 58 9 35 12 39 22 53	18 55 1 8 8 53 11 36 21 14	19 56 2 9 — 22 46	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	22 35 4 48 10 17 13 42 24 32	t. t. 1·6 3·9 t.
379 Aug. 14 Wed. 380 Feb. 7 Fri. 380 Aug. 2 Sun. 381 Jan. 26 Tues. 382 June 12 Sun.	Bhàdrapada.       302         Phâlguna.       302         Śrâvaṇa, (w. m. i.) Śrâvaṇa II.       303         Mâgha.       303         Âshâḍha       305	10 23 4 2 19 47 16 6 9 52	8 39 2 15 18 3 15 28 9 4	9 52 3 22 19 18 —	10 54 4 42 20 16 —	12 7 5 49 21 31 16 44 10 40	$\begin{array}{c} {\rm t.} \\ {\rm t.} \\ {\rm t.} \\ {\rm 1\cdot 3} \\ {\rm 2\cdot 2} \end{array}$
382 Dec. 7 Wed. 383 June 1 Thur. 383 Nov. 26 Sun. 384 May 21 Tues. 384 Nov. 14 Thur.	Pausha.       305         Jyeshtha II, (w. m. i.) Jyeshtha       306         Mârgaśirsha       306         Jyeshtha       307         Mârgaśirsha       307	9 24 19 34 14 41 11 4 14 14	7 42 17 43 12 54 9 36 13 53	9 3 18 44 14 2 —	9 45 20 24 15 20 —	11 6 21 25 16 28 12 32 14 35	t. t. t. 8·5 0·4
386 Apr. 1 Wed. 386 Sept. 24 Thur. 387 Mar. 21 Sun. 387 Sept. 14 Tues. 388 Sept. 2 Sat.	Chaitra       309         Âśvina       309         Chaitra       310         Âśvina       310         Bhâdrapada, (w. m. i.) Âśvina I       311	7 18 11 38 10 52 3 29 19 5	5 38 10 1 9 5 1 39 18 14	7 8 	7 28  11 31 4 17 -	8 58 13 15 12 39 5 19 19 56	t. 11·2 t. t. . 2·5
390 Jan. 17 Thur. 390 July 13 Sat. 391 Jan. 7 Tues. 391 July 2 Wed. 391 Dec. 27 Sat.	Mâgha.       312         Śrâvana.       313         Mâgha.       313         Âshadha II, (w. m. i.) Âshâdha.       314         Pausha.       314	15 16 18 1 7 4 19 38 20 31	13 32 16 16 5 16 17 57 20 13	14 45 17 26 6 22 19 19	15 47 18 36 7 46 19 57	17 0 19 46 8 52 21 19 20 49	t. t. t. 0·3
393 May 12 Thur. 393 Nov. 5 Sat. 394 May 2 Tues. 394 Oct. 25 Wed. 395 Apr. 21 Sat.	Jyeshtha       316         Mårgasirsha       316         Vaisakha, II (w. m. i.) Vaisakha       317         Kårttika       317         Vaisakha       318	11 31 8 39 4 18 11 12 16 50	10 2 7 8 2 26 9 22 15 53	3 27 10 23	5 9 12 1	13 0 10 10 6 10 13 2 17 47	8·7 9·4 t. t. 3·1
395 Oct. 14 Sun. 397 Feb. 28 Sat. 397 Aug. 24 Mon. 398 Feb. 17 Wed. 398 Aug. 14 Sat.	Kârttika       318         Phâlguna       319         Bhâdrapada       320         Phâlguna       320         Bhâdrapada       321	21 7 6 20 18 4 12 6 2 58	20 2 4 43 16 23 10 18 1 12	17 45 11 24 2 21	18 23 12 48 3 35	22 12 .7 57 19 45 13 54 .4 44	4·2 11·4 t. f.

	Пindu Month	Time measured from Lanka mean sunrise, taken as 6 A.M.						,	Number of	
. A. D.	aud		ntest	Beg	1	Perio		Er		twelfths
Year, Month,	Current Śaka Year.	[i.e. mei	mo- it of	ning Ecli		Begin-	End.	o Ecli	-	eclipsed. ["t."=total
and Day.	["w.m.i." = with mean intercalations.]	fulln h.	noon] m	ի.		ning. h. m.	h. m.	h.		eclipse.]
1	2	-:	3	4	Ł	· 5	в	7		8
399 Feb. 6 Suu. 400 June 22 Fri. 400 Dec. 17 Mon. 401 June 12 Wed. 401 Dec. 6 Fri.	Phûlguna       321         Âshûdha       323         Pausha       323         Âshûdha       324         Pausha       324	24 16 17 2 22	37 38 58 49 51	23 16 16 0 21	54 15 17 58 4	$\begin{array}{ccc} - & - & - & - & - & - & - & - & - & - $	18 18 3 36 23 31	25 17 19 4 24	20 1 39 38 38	1·7 0·5 t. t. t.
402 June 1 Sun. 402 Nov. 25 Tues. 404 Apr. 11 Mon. 404 Oct. 4 Tues. 405 Mar 31 Fri.	Jycshtha II, (w. m. i.) Jycshtha.       325         Mârgaśirsha.       325         Vniśākha.       327         Kârttika I, (w. m. i.) Kârttika.       327         Chaitra.       328	18 22 14 19 17	32 14 32 59 50	16 21 12 18 16	58 48 56 23		18 34	20 22 16 21 19	6 40 8 35 39	10·3 0·6 10·9 10·9 t.
405 Sept. 24 Sun. 406 Mar. 20 Tues. 406 Sept. 14 Fri. 408 Jan. 28 Tues. 408 July 23 Thur.	Âśvina.       328         Chaitra.       329         Âśvina.       329         Mâgha.       330         Śrâvaṇa.       331	11 17 3 23 24	53 59 6 52 31	10 17 2 22 22 22	3 26 7 8 49	11 4 - 23 23 23 8	12 42 ———————————————————————————————————	13 18 4 25 26	43 32 5 36 13	f. 1·0 3·4 t. t.
409 Jan. 17 Sun. 409 July 13 Tues. 410 Jan. 7 Fri. 411 May 23 Tues. 411 Nov. 16 Thur.	Mâgha       331         Śrâvaṇa       332         Mâgha       332         Jyeshtha       334         Mârgaśirsha       334	15 2 5 19 16	49 21 7 5 40	14 · 0 4 17 15	1 36 46 41 10	15 7 1 48 — —	16 31 2 54 — —	17 4 5 20 18	37 6 28 26 10	t. t. 0·4 .7·1 9·1
412 May 12 Sun. 412 Nov. 4 Mon. 413 May 1 Thur. 413 Oct. 25 Sat. 415 Mar. 11 Thur.	Jycshtha       335         Mûrgaśirsha       335         Vaiśakha II, (w. m. i.) Vaiśakha       336         Kûrttika       336         Chaitra       338	11 19 23 5 13	43 29 55 41 48	9 17 22 4 12	51 39 48 32 14	10 51 18 40 — —	12 35 20 18 — — —	13 21 25 6 15	35 19 2 50 22	t. t. 4.5 4.7 10.3
415 Sept. 5 Sun. 416 Feb. 28 Mon. 416 Aug. 24 Thur. 417 Feb. 17 Sat. 418 Dec. 29 Sun.	Bhâdrapada II, (w. m. i.) Âśvina.       338         Phâlguna.       335         Bhâdrapada.       339         Phâlguna.       339         Pausha.       341	1 20 10 9 2	51 3 9 3 34	0 18 8 8 0	13 14 21 13 53	19 18 9 27 — 2 14	20 48 10 51 — 2 54	3 21 11 9 4	29 52 57 53 15	11·7 t. t. 2·4 t.
419 June 23 Mon. 419 Dec. 18 Thur. 420 June 12 Sat. 420 Dec. 6 Mon. 422 Apr. 22 Sat.	Âshâḍha       342         Pausha       342         Âshâḍha       343         Pausha       343         Vaiśâkha       345	10 7 2 6 21	1 0 19 35	8 5 0 5 20	12 17 21 49 4	9 17 6 24 — —	10 45 7 44 — —	11 8 3 6 23	50 51 39 49 6	t. t. 11·9 0·8 9·2
422 Oct. 16 Mon. 423 Apr. 11 Wed. 423 Oct. 5 Fri. 424 Mar. 31 Mon. 424 Sept. 24 Wed.	Kârttika       345         Vaiśâkha       346         Âśvina II, (w. m. i.) Kârttika       346         Chaitra II, (w. m. i.) Chaitra       317         Âśvina       347	4 24 20 0 11		2 22 18 0 10	56 48 31 9 13	23 50 19 32 —	25 26 21 12 —	6 26 22 1 12	28 13 49 21	10·3 t. t. 2·4 4·0
426 Feb. 8 Mon. 426 Aug. 4 Wed. 427 Jan. 28 Fri. 427 July 24 Sun. 428 Jan. 18 Wed.	Phâlguna       348         Śrâvaṇa II, (w. m. i.) Bhâdrapada I.       349         Mâgha.       349         Śrâvaṇa.       350         Mâgha.       350	8 7 24 9 13	24 14 27 12 38	6 5 22 7 13	41 36 38 25 17	7 57 	8 51 25 11 9 52	10 8 26 10 13	7 52 16 59 59	t. 11·6 t. t. 0·4
428 July 12 Thur. 429 June 3 Mon. 429 Nov. 26 Tues. 430 May 23 Fri. 430 Nov. 16 Sun.	Srâvaṇa       351         Jyeshtha II       352         Mârgaśirsha       352         Jyeshtha       353         Mârgaśirsha       353	17 2 24 19 3	6	17 1 23 17 2	47 20 16 14 3	18 15 3 4	19 57 4 42	18 3 26 20 5	9 46 16 58 43	0·1 5·5 9·1 t.

А. D.	Hindu Month		l'ime	measu	red	from Laul en as 5 A	a mean s	unrise,		Number of
Year, Month,	and	1 .	atest ase.	Begi			od of curation.	Eu		twelfths
	Current Śaka Year.	[i.e.	mo- nt of	ning Eclip		Begin-	End.	Eeli		cclipsed.
and Day.	["w.m.i." = with mean intercalations.]	1	m.	h.		ning.	h. m.	h.	· · ·	["t."=total eclipse.]
1	2	·	3	4		5	6	7		8
431 May 13 Wed. 431 Nov. 5 Thur. 433 Mar. 21 Tues. 433 Sept. 15 Fri. 434 Mar. 11 Sun.	Jyeshtha       354         Mûrgaśirsha       354         Chaitra       356         Âśvina       356         Chaitra       357	6 14 20 9 3	56 19 58 45	13 19	40 9 27 10 0	3 2		8 15 22 11 5	12 29 29 20 40	6·0 4·9 9·3 10·8 t.
434 Sept. 4 Tues. 435 Feb. 28 Thur. 435 Aug. 24 Sat. 437 Jan. 8 Fri. 437 July 3 Sat.	Bhâdrapada II, (w. m. i.) Âśvina	17 17 18 10 17	27 16 49 58 17	16 18 9	37 18 18 17 31	16 41 10 41 16 40	18 13 — . 11 15 17 54	19 18 19 12 19	17 14 20 39 3	· t. 3·2 0·9 t. t.
437 Dec. 28 Tues. 438 June 23 Thur. 438 Dec. 17 Sat. 440 May 3 Fri. 440 Oct. 26 Sat.	Pausha       360         Âshâḍha       361         Pausha       361         Jyeshtha I, (w. m. i.) Vaiśâkha       363         Kârttika       363	15 9 14 4 13	13 30 22 33 8	7 13 3	26 47 51 10 34	14 33 9 4 —	15 53 9 56 —	11 14 5	0 13 53 56 42	t. t. 0.9 7.5 10.2
441 Apr. 22 Tues. 441 Oct. 16 Thur. 442 Apr. 11 Sat. 442 Oct. 5 Mon. 444 Feb. 19 Sat.	Vaiśâkha.       364         Kârttika.       364         Vaiśâkha.       365         Âśvina, (w. m. i) Kârttika.       365         Phâlguna.       366	7 4 7 19 16	20 55 53 36 53	3 6 18	29 4 51 30 11	6 30 4 5 — 16 30	8 10 5 45 — 17 16	9 6 8 20 18	11 46 55 42 35	t. t. 3·8 4·3 t.
444 Aug. 14 Mon. 445 Feb. 8 Thur. 445 Aug. 3 Fri. 446 Jan. 28 Mon. 446 July 21 Wed.	Bhâdrapada.       367         Phâlguna.       367         Śrâvaṇa II, (w. m. i.) Bhâdrapada I.       368         Mâgha.       368         Śrâvaṇa.       369	14 9 16 22 1	2 0 11 3 20	7 14 21	29 11 21 37 38	8 15 15 25 —	9 45 16 57 —	15 10 18 22 2	35 49 1 29 2	10·1 t. t. 0·6 1·6
447 June 14 Sat. 447 Dec. 8 Mon. 448 June 3 Thur. 448 Nov. 26 Fri. 449 May 23 Mon.	Âshâdha       370         Pausha       370         Jyeshtha II, (w. m. i.) Jyeshtha       371         Mûrgasîrsha       371         Jyeshtha       372	10 8 2 12 13	1 52 27 21 55	7 0 10	58 22 36 31 31		3 17 13 10 —	4 14	22 18 11 11	3·9 8·9 t. t. 7·7
449 Nov. 15 Tues. 451 Apr. 2 Mon. 451 Sept. 26 Wed. 452 Mar. 21 Fri. 452 Sept. 14 Sun.	Mûrgaśîrsha       372         Vaiśûkha I, (w. m. i.) Chaitra       374         Âśvina       375         Âśvina       375	23 4 17 11 24	1 5 48 32 58	$\frac{2}{16}$	50 38 15 42 8	10 43 24 10	12 21 25 46	5 19 13	12 32 21 22 48	5·0 8·2 10·0 t. t.
453 Mar. 11 Wed. 453 Sept. 4 Fri. 455 Jan. 19 Wed. 455 July 14 Thur. 456 Jan. 8 Sun.	Chaitra       376         Bhâdrapada II, (w.m.i.) Âśvina       376         Mâgha       377         Śrâvaṇa       378         Mâgha       378	1 1 19 24 23	23 55 20 43 16	$\begin{array}{c} 1\\17\\22\end{array}$	18 9 40 59 29	 19 8 24 13 22 35		2 2 21 26 25	28 41 0 27 3	4:1 2:0 t. t. t.
456 July 3 Tues. 456 Dec. 27 Thur. 458 May 14 Wed. 458 Nov. 6 Thur. 459 May 3 Sun.	Ashâdha II       379         Pausha       379         Jyeshtha       381         Mârgaśirsha       381         Jyeshtha I, (w. m. i.) Vaiśâkha       382	17. 22 11 21 21 13	1 28 21 53 55	21 10	15 57 7 20 3	16 25 . — — — 13 3	17 37 — — 14 47	12 23	47 59 35 26 47	t. 0·9 5·7 9·9 t.
459 Oct. 27 Tues. 460 Apr. 21 Thur. 460 Oct. 16 Sun. 462 Mar. 1 Thur. 462 Aug. 25 Sat.	Kârttika       382         Vaiśâkha       383         Kârttika       383         Phâlguna       384         Bhâdrapada       385	13 14 3 25 21	33 40 57 8 1	13 2 23	42 27 48 28 32	12 43 — 24 58 —	14 23 — 25 18 —	15 5 26	24 53 6 48 30	t. 5·5 4·7 t. 8·7

	Hindu Month	Time	Time measured from Lanka mean sunrise, taken as 6 A.M.					
. A. D. Year, Month,	nud	Greatest phase.	Degin-	Perio	od of curation.	End	twelfths eclipsed.	
and Day.	Current Śaka Year.	[i.e. mo- ment of full moon		Begin- ning.	End.	of Eclipse.	["t."=total	
	["w.m.i." = with mean intercalations]	h. m	h. m.	h. m.	h. m.	h. m.	eclipse.]	
1	2	3	4	5	6	7	8	
399 Feb. 6 Sun. 400 June 22 Fri. 400 Dec. 17 Mon. 401 June 12 Wed. 401 Dec. 6 Fri.	Phâlguna       321         Âshûdha       323         Pausha       323         Âshûdha       324         Pausha       324	$\begin{bmatrix} 24 & 37 \\ 16 & 38 \\ 17 & 58 \\ 2 & 48 \\ 22 & 51 \end{bmatrix}$	23 54 16 15 16 17 0 58 21 4	17 38 2 0 22 11	18 18 3 36 23 31	25 20 17 1 19 39 4 38 24 38	1·7 0·5 1. t. t.	
402 June 1 Sun. 402 Nov. 25 Tues. 404 Apr. 11 Mon. 404 Oct. 4 Tues. 405 Mar 31 Fri.	Jyeshtha II, (w. m. i.) Jyeshtha.       325         Mârgaśirsha.       325         Vniśākha.       327         Kârttika I, (w. m. i.) Kârttika.       327         Chaitra.       328	18 32 22 14 14 32 19 59 17 50	16 58 21 48 12 56 18 23 16 1	17 6		20 6 22 40 16 8 21 35 19 39	10·3 0·6 10·9 10·9 t.	
405 Sept. 24 Sun. 406 Mar. 20 Taes, 406 Sept. 14 Fri. 408 Jan. 28 Tues. 408 July 23 Thur.	Âśvina.       328         Chaitra       329         Âśvina.       329         Mâgha.       330         Śrâvaņa.       331	11 53 17 59 3 6 23 52 24 31	10 3 17 26 2 7 22 8 22 49	11 4 - 23 23 23 8	12 42 ———————————————————————————————————	13 43 18 32 4 5 25 36 26 13	t. 1·0 3·4 t. t.	
409 Jan. 17 Sun. 409 July 13 Tues. 410 Jan. 7 Fri. 411 May 23 Tues. 411 Nov. 16 Thur.	Mâgha       331         Śrâvaṇa       332         Mâgha       332         Jyeshṭha       334         Mârgaśirsha       334	15 49 2 21 5 7 19 5 16 40	14 1 0 36 4 46 17 44 15 10	15 7 1 48 — — —	16 31 2 54 — —	17 37 4 6 5 28 20 26 18 10	$\begin{array}{c} t. \\ t. \\ 0 \cdot 4 \\ 7 \cdot 1 \\ 9 \cdot 1 \end{array}$	
412 May 12 Sun. 412 Nov. 4 Mon. 413 May 1 Thur. 413 Oct. 25 Sat. 415 Mar. 11 Thur.	Jyeshtha       335         Mârgaśirsha       335         Vaiśâkha II, (w. m. i.) Vaiśâkha       336         Kârttika       336         Chaitra       338	11 43 19 29 23 55 5 41 13 48	17 39	10 51 18 40 — —	12 35 20 18 — — —	13 35 21 19 25 2 6 50 15 22	t. t. 4·5 4·7 10·3	
415 Sept. 5 Sun. 416 Feb. 28 Mon. 416 Aug. 24 Thur. 417 Feb. 17 Sat. 418 Dec. 29 Sun.	Bhâdrapada II, (w. m. i.) Âśvina.       338         Phâlguna.       339         Bhâdrapada.       339         Phâlguna.       339         Pausha.       341	1 51 20 3 10 9 9 3 2 34	8 21 8 13	19 18 9 27 - 2 14	20 48 10 51 - 2 54	3 29 21 52 11 57 9 53 4 I5	11.7 t. t. 2.4 t.	
419 June 23 Mon. 419 Dec. 18 Thur. 420 June 12 Sat. 420 Dec. 6 Mon. 422 Apr. 22 Sat.	Âshâḍha       342         Pausha       342         Âshâḍha       343         Pausha       343         Vaiśâkha       345	$\begin{bmatrix} 10 & 1 \\ 7 & 4 \\ 2 & 0 \\ 6 & 19 \\ 21 & 35 \end{bmatrix}$	5 17 0 21 5 49	9 17 6 24 — —	10 45 7 44 — — —	11 50 8 51 3 39 6 49 23 6	t. t. 11·9 0·8 9·2	
422 Oct. 16 Mon. 423 Apr. 11 Wed. 423 Oct. 5 Fri. 424 Mar. 31 Mon. 424 Sept. 24 Wed.	Kârttika       345         Vaiśâkha       346         Âśvina II, (w. m. i.) Kârttika       346         Chaitra II, (w. m. i.) Chaitra       347         Âśvina       317	$\begin{array}{c cccc} 4 & 30 \\ 24 & 38 \\ 20 & 22 \\ 0 & 59 \\ 11 & 17 \end{array}$	22 48 18 31 0 9	23 50 19 32 —	25 26 21 12 —	6 4 26 28 22 13 1 49 12 21	10·3 t. t. 2·4 4·0	
426 Feb. 8 Mon. 426 Aug. 4 Wed. 427 Jan. 28 Fri. 427 July 24 Sun. 428 Jan. 18 Wed.	Phâlguna       348         Śrâvaṇa II, (w. m. i.) Bhâdrapada I.       349         Mâgha       349         Śrâvaṇa       350         Mâgha       350	8 24 7 14 24 27 9 12 13 38	5 36 22 38 7 25	7 57 	8 51 25 11 9 52 —	10 7 8 52 26 16 10 59 13 59	t. 11.6 t. t. 0.4	
428 July 12 Thur. 429 June 3 Mon. 429 Nov. 26 Tues. 430 May 23 Fri. 430 Nov. 16 Sun.	Srâvaṇa       351         Jyeshtha II       352         Mârgaśirsha       352         Jyeshtha       353         Mârgaśirsha       353	17 59 2 33 24 40 19 0 3 53	$\begin{array}{c cccc} & 1 & 20 \\ 23 & 16 \\ 17 & 14 \end{array}$	18 15 3 4	- - 19 57 4 42	18 9 3 46 26 16 20 58 5 43	0·1 5·5 9·1 t.	

#### ECLIPSES OF THE MOON IN INDIA.

A. D.	Hindu Month	Time	_	from Laid in as 5 A.		unrlea,	Number of
Year, Month.	and	Greatest phase.	Begin.		od of curation.	End	tarifds rclipsed.
and Day.	Current Saka Year.	[i.e. mo- ment of full moon]	ning of Eclipse.	Begin-	End.	of Deliper,	["f,"= total
and the second s	["w.m.i." == with mean intercalations.]	h, to.	h. m.	h. m.	հ. ա.	h. m.	eelljan J
1		3	4	5	8		8
431 May 13 Wed. 431 Nov. 5 Thur. 433 Mar. 21 Tues. 433 Sept. 15 Fri. 434 Mar. 11 Sun.	Jyeshtha       354         Margasirsha       354         Chaitra       356         Âsvina       356         Chaitra       357	6 56 14 19 20 58 9 45 8 50	5 40 13 9 19 27 8 10 2 0	3 2	4 38	8 12 15 29 22 29 11 20 5 40	6+0 4-9 9+3 10+8 t.
434 Sept. 4 Tues. 435 Feb. 28 Thur. 435 Aug. 24 Sat. 437 Jan. 8 Fri. 437 July 3 Sat.	Bhàdrapada II, (w. m. i.) Âśvina       357         Phàlguna       357         Bhâdrapada       358         Magha       359         Àshâḍha II       360	17 27 17 16 18 49 10 58 17 17	15 37 16 18 18 18 9 17 15 31	16 41 10 41 16 40	18 13 ————————————————————————————————————	19 17 18 14 19 20 12 39 19 3	t. 3 · 2 0 · 9 t. t.
437 Dec. 28 Tues. 438 June 23 Thur. 438 Dec. 17 Sat. 440 May 3 Fri. 440 Oct. 26 Sat.	Pausha.       360         Âshāḍha.       361         Pausha.       361         Jyeshtha 1, (w. m. i.) Vaisākha.       363         Kārttika.       363	15 13 9 30 14 22 4 33 13 8	13 26 7 47 13 51 3 10 11 34	14 33 9 4 — —	15 53 9 56 — —	17 0 11 13 14 53 5 56 14 42	t. t. 0 9 7 5 10 2
441 Apr. 22 Tues. 441 Oct. 16 Thur. 412 Apr. 11 Sat. 442 Oct. 5 Mon. 414 Feb. 19 Sat.	Vaiśākha.       364         Kārttika.       364         Vaiśākha.       365         Āśvina, (w. m. i) Kārttika.       365         Phâlguna.       366	7 20 4 55 7 53 19 36 16 53	5 29 3 4 6 51 18 30 15 11	6 30 4 5 — — 16 30	8 10 5 45  17 16	9 11 6 46 8 55 20 42 18 35	t. t. 3+8 4+3 t.
444 Aug, 14 Mon. 445 Feb. 8 Thur. 415 Aug. 3 Fri. 446 Jun. 28 Mon. 446 July 24 Wed.	Bhàdrapada.       367         Phâlguna.       367         Śrâvana II, (w. m. i.) Bhâdrapada I.       368         Mâgha.       368         Śrâvana.       369	$\begin{array}{cccc} 14 & 2 \\ 9 & 0 \\ 16 & 11 \\ 22 & 3 \\ 1 & 20 \\ \end{array}$	12 29 7 11 14 21 21 37 0 38	8 15 15 25 —	9 45 16 57 —	15 35 10 49 18 1 22 29 2 2	10:1 t, t, 0:6 1:6
417 June 14 Sat. 447 Dec. 8 Mon. 448 June 3 Thur. 448 Nov. 26 Fri. 419 May 23 Mon.	Âshûdha       370         Pausha       370         Jyeshtha II, (w. m. i.) Jyeshtha       371         Mûrgasîrsha       371         Jyeshtha       372	10 1 8 52 2 27 12 21 13 55	8 58 7 22 0 36 10 31 12 31	1 37 11 32	3 17 13 10	11 4 10 22 4 18 14 11 15 19	3·9 8·9 t. t. 7·7
449 Nov. 15 Tucs. 451 Apr. 2 Mon. 451 Sept. 26 Wed. 452 Mar. 21 Fri. 452 Sept. 14 Sun.	Mûrgasîrsha       372         Vnisakha I, (w. m. i.) Chaitra       374         Âsvina       374         Chaitra       375         Âsvina       375	23 1 4 5 17 45 11 32 24 58	21 50 2 38 16 15 9 42 23 8	10 43 24 10	12 21 25 46	24 12 5 32 19 21 13 22 26 48	5·0 8·2 10·0 t. t.
453 Mar. 11 Wed. 453 Sept. 4 Fri. 455 Jan. 19 Wed. 455 July 14 Thur. 456 Jan. 8 Sun.	Chaitra.       376         Bhádrapada II, (w.m.i.) Ásvina.       376         Mágha.       377         Srávana.       378         Mágha.       378	1 23 1 55 19 20 24 43 23 16	0 18 1 9 17 40 22 59 21 29	19 8 24 13 22 35	19 32 25 13 23 57	2 28 2 41 21 0 26 27 25 3	4·1 2·0 t. t. t.
456 July 3 Tues. 456 Dec. 27 Thur. 458 May 14 Wed. 458 Nov. 6 Thur. 459 May 3 Sun.	Ashâdha II       379         Pausha       379         Jyeshtha       381         Mârgaśirsha       381         Jyeshtha I, (m.n.i.) Vaišākha       382	17 1 22 25 11 21 21 53 13 55	15 15 21 57 10 7 20 20 12 3	16 25  13 3	17 37 — — 11 47	18 47 22 59 12 35 23 26 15 47	t. 0:9 5:7 9:9 t.
459 Oct. 27 Turs. 460 Apr. 21 Thur. 460 Oct. 16 Sun. 452 Mar. 1 Thur. 462 Aug. 25 Sat.	Kårttika       382         Vaifákha       353         Kårttika       383         Phålguna       384         Bhådrapada       385	13 33 14 40 3 57 25 8 21 1	11 42 13 27 2 48 23 28 19 32	12 43 ————————————————————————————————————	14 23 ————————————————————————————————————	15 24 15 58 5 6 26 48 22 50	t. 5:5 4:7 t. 8:7

	Ilindu Month	Time	Time measured from Laika mean sunrise, taken as 6 A.M.				
A. D. Year, Month,	and	Greatest phase,	Begin-	Perio	od of	End	twelfths eclipsed.
and Day.	Current Śaka Year.	[i.c.mo- ment of	ning of Eclipse.	Begin- ning.	End.	of Eclipse.	["t."= total
unu Day.	["w.m.i." = with mean intercalations.]	h. m.	lı. m.	h. m.	h. m.	h. m.	eclipse.]
11	2	3	4	5	6,	7	8
463 Feb. 19 Tues. 463 Aug. 14 Wed. 464 Feb. 9 Sun. 464 Aug. 3 Mon. 465 June 24 Thur.	Phâlguna.       385         Bhâdrapada.       386         Phâlguna.       386         Śrâvaṇa II, (w. m. i.) Bhâdrapada I.       387         Ashâḍha.       388	17 22 23 22 6 14 8 52 17 27	15 32 21 32 5 41 7 55 16 39	16 36 22 33 — — —	18 8 24 11 — — —	19 12 25 12 6 47 9 49 18 15	t. t. 1·0 3·1 2·2
465 Dec. 18 Sat. 466 June 14 Tues. 466 Dec. 7 Wcd. 467 June 3 Sat. 467 Nov. 27 Mon.	Pausha       388         Âshâḍha       389         Pausha       389         Jyeshtha II, (w. m. i.) Jyeshtha       390         Mârgaśirsha       390	17 0 9 40 20 51 20 43 7 55	15 30 7 50 19 0 19 12 6 43	8 53 20 1 —	10 27 21 41 —	18 30 11 30 22 42 22 14 9 7	8·9 t. t. 9·4 5·2
469 Apr. 12 Sat. 469 Oct. 7 Tues. 470 Apr. 1 Wed. 470 Sept. 26 Sat. 471 Mar. 22 Mon.	Vaiśâkha       392         Kârttika       392         Vaiśâkha I, (w.m.i.) Chaitra       393         Âśvina       393         Chaitra       394	11 7 1 58 19 8 8 34 9 26	9 47 0 27 17 16 6 44 8 15	 18 17 7 45 	19 59 9 23 —	12 27 3 29 21 0 10 24 10 37	6·8 9·4 t. t. 5·0
471 Sept. 15 Wed. 473 Jan. 30 Tucs. 473 July 25 Wed. 474 Jan. 19 Sat. 474 July 14 Sun.	Aśvina.       394         Magha       395         Śrâvaṇa.       396         Magha       396         Śrâvaṇa.       397	9 8 3 35 8 16 7 14 24 35	8 12 1 56 6 35 5 26 22 47	3 35 7 57 6 32 23 52	3 35 8 35 7 56 25 18	10 4 5 14 9 57 9 2 26 23	3·0 t. t. t. t.
475 Jan. 8 Wed. 475 July 4 Fri. 476 May 24 Mon. 476 Nov. 17 Wed. 477 May 13 Fri.	Mâgha       397         Ashâdha II       398         Jyeshtha       399         Mârgaśîrsha       399         Jyeshtha       400	6 20 17 16 18 8 6 43 20 24	5 42 17 1 17 6 5 11 18 33	19 34	21 14	6 58 17 31 19 10 8 15 22 15	1·3 0·2 3·7 9·8 t.
477 Nov. 6 Sun. 478 May 2 Tues. 478 Oct. 27 Fri. 480 Mar. 12 Wed. 480 Sept. 5 Fri.	Mârgaśirsha       400         Jyeshtha I, (w. m. i.) Vaiśâkha       401         Kârttika       401         Chaitra       403         Âśvina I, (w. m. i.) Âśvina       403	22 24 21 27 12 20 9 21 4 8	20 33 20 5 11 10 7 44 2 44	21 34 — — — —	23 14	24 15 22 49 13 30 10 58 5 32	$\begin{array}{c} { m t.} & { m 7\cdot 2} & { m 4\cdot 9} & { m 11\cdot 4} & { m 7\cdot 6} & { m 7\cdot 6} \end{array}$
481 Mar. 1 Sun. 481 Aug. 25 Tucs. 482 Feb. 19 Fri. 482 Aug. 14 Sat. 483 July 6 Wed.	Phâlguna       403         Bhâdrapada       404         Phâlguna       404         Bhâdrapada       405         Śrâvaṇa I       406	25 40 6 40 14 20 16 32 1 0	23 50 4 49 13 40 15 24 0 32	24 52 5 50 — —	26 28 7 30 — — —	27 30 8 31 15 0 17 40 1 28	t. t. 1·5 4·6 0·7
483 Dec. 29 Thur. 484 June 24 Sun. 484 Dec. 18 Tues. 485 June 14 Fri. 485 Dec. 7 Sat.	Pausha       406         Âshâḍha       407         Pausha       407         Âshâḍha       408         Pausha       408	25 9 16 58 5 25 3 33 16 46	23 39 15 10 3 34 1 56 15 35	16 16 4 35 —	17 40 6 15 —	26 39 18 46 7 16 .5 10 17 57	8·9 t. t. 11·2 5·1
487 Apr. 23 Thur. 487 Oct. 18 Sun. 488 Apr. 12 Tues. 488 Oct. 6 Thur. 489 Apr. 1 Sat.	Vaiśâkha       410         Kârttika       410         Vaiśâkha       411         Kârttika I, (w. m. i.) Kârttika       411         Chaitra II, (w. m. i.) Chaitra       412	18 2 10 18 2 37 16 20 17 20	16 51 8 48 0 45 14 29 16 3	1 45 15 30	3 29 17 10	19 13 11 48 4 29 18 11 18 37	5·1 8·9 t. t. 6·2
489 Sept. 25 Mon. 491 Feb. 10 Sun. 491 Aug. 5 Mon. 492 Jan. 30 Thur. 492 July 25 Sat.	Âśvina.       412         Phâlguna.       413         Bhâdrapada I, (w. m. i.)       Bhâdrapada.       414         Mâgha.       414         Śrâvaṇa.       415	16 32 11 44 15 48 15 10 8 11	15 30 10 6 14 12 13 22 6 21	$ \begin{array}{c cccc}  & - & - & - & - & - & - & - & - & - & $	15 53 8 58	17 34 13 22 17 24 16 58 10 1	3 · 8 11 · 7 11 · 1 t. t.

	Hindu Month	Time	measured tak	from Lan en as 5 A		unrise,	Number of
A. D. Year, Month,	and	Greatest phase.	Begin-		od of curation.	End	twelfths eclipsed.
and Day.	Current Śaka Year.	[i.e. mo- ment of full moon]	ning of Eclipse.	Begin- ning.	End.	of Eclipse.	["t."= total
•	["w.m.i." = with mean intercalations.]	h. m.	h. m.	h. m.	h. m.	h. m.	eclipse.]
1	2	3	4	5	в	7	8
493 Jan. 18 Mon. 493 July 15 Thur. 494 June 5 Sun. 494 Nov. 28 Mon. 495 May 25 Thur.	Mågha.       415         Śrâvana.       416         Ashādha I.       417         Mårgaširsha       417         Jycshtha.       418	14 26 0 41 0 49 15 38 2 51	13 43 0 2 0 3 14 6 1 1	2 3	3 39	$ \begin{array}{c cccc} 15 & 9 \\ 1 & 20 \\ 1 & 35 \\ 17 & 10 \\ 4 & 41 \end{array} $	1·7 1·4 2·0 9·8 t.
495 Nov. 18 Sat. 496 May 13 Mon. 496 Nov. 6 Wed. 498 Mar. 23 Mon. 498 Sept. 16 Wed.	Mûrgasîrsha       418         Jyeshtha       419         Mûrgasîrsha       419         Chaitra       421         Âsvîna       421	7 13 4 6 20 57 17 24 11 25	5 21 2 36 19 46 15 50 10 7	6 22 - - -	8 4	9 5 5 36 22 8 18 58 12 43	t. 9·0 5·0 10·4 6·5
499 Mar. 13 Sat. 499 Sept. 5 Sun. 500 Mar. 1 Wed. 500 Aug. 24 Thur. 502 Jan. 9 Wed.	Chaitra       422         Âśvina I, (w. m. i) Áśvina       422         Phâlguna       422         Bhâdrapada       423         Mâgha       424	9 48 14 19 22 18 24 14 9 10	7 58 12 20 21 30 23 1 7 42	S 59 13 21 — —	10 37 15 3 — —	11 38 16 4 23 6 25 27 10 38	t. t. 2.2 5.4
502 July 5 Fri. 502 Dec. 29 Sun. 503 June 25 Wed. 503 Dec. 19 Fri. 505 May 3 Tues.	Âshâdha II, (w. m. i.) Ścavana I.       425         Pausha       426         Ashâdha       426         Pausha       426         Jyeshtha I, (w. m. i.) Vaišākha II       428	24 19 13 52 10 21 1 39 24 55	22 34 12 1 S 40 0 27 23 51	23 44 13 2 10 1 —	24 54 14 42 10 41 —	26 4 15 43 12 2 2 51 25 56	t. t. t. 5·2 3·6
505 Oct. 28 Fri. 506 Apr. 23 Sun. 506 Oct. 17 Tues. 507 Apr. 12 Thur. 507 Oct. 6 Sat.	Kârttika       428         Vaisākha       429         Kârttika       429         Vaišākha       430         Kârttika       430	18 37 10 4 24 8 25 7 24 1	17 9 8 12 22 17 23 43 22 53	9 12 23 18	10 56 24 58	20 5 11 56 25 59 26 31 25 9	8·4 t. t. 7·6 4·6
509 Feb. 20 Fri. 509 Aug. 15 Sat. 510 Feb. 9 Tues. 510 Aug. 5 Thur. 511 Jan. 29 Sat.	Phúlguna.       431         Bhâdrapada.       432         Phálguna.       432         Śrâvana II, (c. m. ř.) Bhádrapada.       433         Mâgha.       433	19 37 23 36 22 45 16 0 22 13	18 1 29 3 20 56 14 10 21 25	22 0 15 11	23 30 16 49	21 13 25 9 24 34 17 50 23 1	10·9 10·1 t. t. 2·2
511 July 26 Tucs, 512 June 15 Fri. 512 Dec. 8 Sat. 513 June 4 Tucs, 513 Nov. 28 Thur.	Śrâvana.       434         Âshûdha.       435         Pausha.       435         Âshûdha I, (w. m. i.) Jyeshtha II.       436         Mûrgasîrsha.       436	8 10 7 26 24 31 9 13 16 8	7 16 7 15 22 59 7 25 14 16	S 31 15 17	9 55 16 59	9 4 7 37 26 3 11 1 18 0	2·8 0·1 9·7 t. t.
514 May 24 Sat. 514 Nov. 18 Tues 516 Apr. 2 Sat. 516 Sept. 26 Mon. 517 Mar. 23 Thur.	Jyeshtha.       437         Mûrgasîrsha.       437         Vnisâkha I, (w. m. r.) Chaitra.       439         Âśvina.       439         Chaitra.       440	10 46 5 31 25 17 18 49 17 45	9 11 4 22 23 46 17 35 15 54	16 55	18 35	12 21 6 46 26 48 20 3 19 36	10·7 5·2 9·3 5·6 t.
517 Sept. 15 Fri. 518 Mar. 13 Tues. 518 Sept. 5 Wed. 520 Jan. 20 Mon. 520 July 16 Thur.	Aśvina.       440         Chaitra.       411         Bhâdrapada II, (w. m. i.) Áśvina.       441         Mâgha.       442         Śrâvaṇa.       413	21 48 6 4 8 9 17 14 7 35	19 56 5 7 6 51 15 46 5 53	20 56 - - 7 11	22 40 - - 7 59	23 40 7 1 9 27 18 42 9 17	t. 3·1 6·5 8·4 t.
521 Jan. 8 Fri. 521 July 5 Mon. 521 Dec. 29 Wed. 523 May 15 Mon. 523 Nov. 9 Thur.	Mûgha.       443         Âshâdha II, (w. m. i.) Śrâvana I.       444         Pausha.       444         Jyeshtha.       446         Mûrgasîrsha.       446	22 23 17 8 10 29 7 45 3 3	20 32 15 23 9 16 6 59 1 36	21 33 16 34 — —	23 13 17 42 — —	24 14 18 53 11 42 8 31 4 30	t. t. 5·4 2·0 8·2

#### THE INDIAN CALENDAR.

. 10	Пindu Month	Time	measured take	from Lank en as 6 A.		inrise,	Number of
A. D. Year, Month,	and	Greatest phase.	Begin-	Perio total obs		End	twelfths
and Day.	Current Śaka Year.	[i.e. mo- ment of	ning of Eclipse.	Begin-	End.	of Eclipse.	eclipsed. ["t."=total
and Day.	["w.m.i." = with mean intercalations.]	fullmoon]	h. m.	h. m.	h. m.	h. m.	eclipse.]
1	2 .	3	4	5	6	7	8
524 May 3 Fri. 524 Oct. 28 Mon. 525 Apr. 23 Wed. 525 Oct. 17 Fri. 527 Mar. 4 Thur.	Jyeshtha I, (w. m.i.) Vaiśâkha.       447         Kârttika.       447         Vaiśâkha.       418         Kârttika.       448         Phâlguna II, (w. m. i.) Phâlguna.       419	17 24 8 7 8 50 7 43 3 23	15 33 6 15 7 20 6 31 1 50	16 34 7 16 — — —	18 14 8 58 — —	19 15 9 59 10 20 8 55 4 56	t. t. 9·0 5·2 10·1
527 Aug. 27 Fri. 528 Feb. 21 Mon. 528 Aug. 15 Tues. 529 Feb. 9 Fri. 529 Aug. 5 Sun.	Bhâdrapada       450         Phâlguna       450         Bhâdrapada       451         Phâlguna       451         Śrâvana II, (w m. i.) Bhâdrapada       452	7 27 6 21 23 52 5 54 15 47	5 57 4 31 22 0 5 1 14 42	5 34 23 1 —	7 8 24 43 —	8 57 8 11 25 44 6 47 16 52	8·9 t. t. 2·7 4·2
530 Dec. 20 Fri. 531 June 15 Sun. 531 Dec. 9 Tues. 532 June 3 Thur. 532 Nov. 28 Sun.	Pausha.       453         Âshâdha.       454         Pausha.       454         Âshâdha I, (w. m. i.) Jyeshtha II.       455         Mûrgasîrsha.       455	9 26 15 33 25 2 17 20 14 13	7 54 13 48 23 10 15 38 13 3	14 59 24 11 16 59	16 7 25 53 17 41	10 58 17 18 26 54 19 2 15 23	9·7 t t. t. 4·9
534 Apr. 14 Fri. 534 Oct. 8 Sun. 535 Apr. 3 Tucs. 535 Sept. 27 Thur. 536 Mar. 23 Sun.	Vaiśâkha       457         Kârttika       457         Vaiśâkha I, (w.m.i.) Chaitra       458         Âśvina       458         Chaitra       459	9 7 2 28 25 33 5 36 13 38	7 42 1 17 23 41 3 44 12 33	24 41 4 45 —	26 25 6 27	10 32 3 39 27 25 7 28 14 43	7·9 5·0 t. t. 4·1
536 Sept. 15 Mon. 538 Jan. 30 Sat. 538 July 27 Tues. 539 Jan. 20 Thur. 539 July 16 Sat.	Aśvina.       459         Mûgha.       460         Śrâvana.       461         Mûgha.       461         Śrâvaṇa.       462	16 13 25 8 14 58 6 48 24 0	14 49 23 43 13 21 4 .57 22 12	5 58 23 18	7 38 24 42	17 37 26 33 16 35 8 39 25 48	7·6 7·8 11·5 t. t.
540 Jan. 9 Mon. 541 May 25 Sat. 541 Nov. 19 Tues. 542 May 14 Wed. 542 Nov. 8 Sat.	Mâgha.       462         Jyeshtha.       464         Mârgasîrsha.       464         Jyeshtha.       465         Mârgasîrsha.       465	19 14 14 29 11 33 24 42 16 8	18 1 14 6 10 6 22 52 14 16	23 54 15 17	25 30 16 59	20 27 14 52 13 0 26 32 18 0	5·5 0·5 8·2 t. t.
543 May 4 Mon. 543 Oct. 28 Wed. 545 Mar. 14 Tucs. 545 Sept. 6 Wed. 546 Mar. 3 Sat.	Jyeshtha I, (w. m. i.)       Vaiśakha.       466         Kârttika.       466         Chaitra.       468         Áśvina.       468         Phâlguna.       468	16 26 15 33 10 55 15 26 13 43	14 52 14 20 9 25 14 1 11 53	12 54	14 32	18 0 16 46 12 25 16 51 15 33	10·4 5·4 9·0 7·8 t.
546 Aug. 27 Mon. 547 Feb. 20 Wed. 547 Aug. 16 Fri. 548 Dec. 30 Wed. 549 June 25 Fri.	Bhâdrapada       469         Phâlguna       469         Bhâdrapada       470         Pausha       471         Âshâḍha       472	7 50 13 29 23 25 18 17 21 56	5 58 12 29 22 13 16 45 20 16	6 58 — — — 21 42	8 42   22 10	9 42 14 29 24 37 19 49 23 36	t. 3·5 . 5·3 9·7 t.
549 Dec. 20 Mon. 550 June 14 Tues. 550 Dec. 9 Fri. 552 Apr. 24 Wed. 552 Oct. 18 Fri.	Pausha       472         Âshâḍha       473         Pausha       473         Vaiśâkha       475         Kârttika       475	9 58 23 59 22 54 16 47 10 14	8 6 22 14 21 43 15 28 9 8	9 7 23 25 — — —	10 49 24 33 — — —	11 50 25 44 24 5 18 6 11 20	t. t. 5·0 6·6 4·3
553 Apr. 14 Mon. 553 Oct. 7 Tues. 554 Apr. 3 Fri. 554 Sept. 26 Sat. 556 Feb. 11 Fri.	Vaiśńkha.       476         Kûrttika.       476         Vaiśńkha I, (w. m. i.) Chaitra.       477         Áśvina.       477         Phâlguna.       478	9 17 13 39 21 5 24 26 8 54	7 25 11 47 19 52 22 59 7 31	8 25 12 48 — — — —	10 9 14 30 — — —	11 9 15 31 22 18 25 53 10 17	t. t. 5·4 8·2 7·5

	· . Hindu Month	Time	measured	from Laúl en as 6 A	a mean si		Number of
A. D.	and	Greatest phase.	1 Degin-		od of curation.	End	twelfths eclipsed.
Year, Month,	Current Śaka Year.	[i.e. mo- ment of	ning of Eclipse.	Begin-	End.	of Eclipse.	["t."= total
and Day.	["w.m.i." = with mean intercalations.]	full moon]	h. m.	lı. m.	h. m.	h. m.	eclipse.]
1	2	3	4	5	6	7	8
556 Aug. 6 Sun. 557 Jan. 30 Tues. 557 July 27 Fri. 558 Jan. 20 Sun. 558 July 16 Tues.	Bhâdrapada I, (15.m.i.) Bhâdrapada       479         Mâgha.       479         Śrâvaṇa.       480         Mâgha.       480         Śrâvaṇa.       481	22 24 15 6 6 54 3 54 8 50	20 51 13 14 5 4 2 40 8 20	14 15 6 7	15 57 7 41 —	23 57 16 58 8 44 5 8 9 20	10·1 t. t. 5·7 0·8
559 Nov. 30 Sun. 560 May 25 Tucs. 560 Nov. 18 Thur. 561 May 14 Sat. 561 Nov. 7 Mon.	Mûrgaśirsha       482         Jyeshtha       483         Mûrgaśirsha       483         Jyeshtha'       484         Mûrgaśirsha       484	20 5 7 59 24 12 23 58 23 30	18 40 6 10 22 20 22 18 22 15	7 15 23 21 23 48	8 43 25 3 24 8	21 30 9 48 26 4 25 38 24 45	7·9 t. t. t. 5·9
563 Mar. 25 San. 563 Sept. 17 Mon. 564 Mar. 13 Thur. 564 Sept. 6 Sat. 565 Mar. 2 Mon.	Chaitra       486         Âśvina       486         Chaitra       487         Âśvina I, (w. m. i.) Âśvina       487         Phâlguna       487	18 23 23 40 20 55 15 55 20 56	16 59 22 19 19 4 14 3 19 49	20 5 15 3	21 45 16 47	19 47 25 1 22 46 17 47 22 3	7·7 7·1 t. t. 4·4
565 Aug. 27 Thur. 567 Jan. 11 Tues. 567 July 7 Thur. 567 Dec. 31 Sat. 568 June 25 Mon.	Bhâdrapada.       488         Mâgha.       489         Śrâvaṇa I, (w. m. i.) Śrâvaṇa.       490         Pausha.       490         Âshâḍha.       491	7 9 3 4 4 26 18 47 6 42	5 52 1 32 2 51 16 55 4 54	17 56 5 59	19 38 7 25	8 26 4 36 6 1 20 39 8 30	6·3 9·6 10·8 t. t.
568 Dec. 20 Thur. 569 June 14 Fri. 570 May 5 Mon. 570 Oct. 29 Wed. 571 Apr. 25 Sat.	Pausha.       491         Âshâḍha.       492         Jyeshtha, (vo. m. i.) Jyeshtha I.       493         Kârttika.       493         Vniśâkha.       494	7 30 15 48 24 23 18 6 16 46	6 19 15 25 23 11 17 3 14 54	15 55	17 37	8 41 16 11 25 35 19 9 18 38	5·1 0·5 5·2 3·9 t.
571 Oct. 18 Sun. 572 Apr. 14 Thur. 572 Oct. 7 Fri. 574 Feb. 21 Wed. 574 Aug. 18 Sat.	Kârttika       494         Vaiśâkha.       495         Kârttika       495         Phâlgaun.       496         Bhâdrapada.       497	21 48 4 19 8 47 16 36 5 56	19 57 3 1 7 18 15 16 4 27	20 58	22 38	23 39 5 37 10 16 17 56 7 25	t. 6·5 8·8 6·9 8·7
575 Feb. 10 Sun. 575 Aug. 7 Wed. 576 Jan. 31 Fri. 576 July 26 Sun. 577 Dec. 11 Sat.	Phâlguna.       497         Bhâdrapada I, (æ.m.i.) Bhâdrapada.       498         Mâgha.       498         Śrâvaṇa.       499         Pausha.       500	23 20 13 48 12 32 15 26 4 38	21 28 11 58 11 15 14 37 3 13	22 20 12 59 — —	24 11 14 37 —	25 12 15 38 13 49 16 15 6 3	t. t. 6·2 2·3 7·8
578 June 5 Sun. 578 Nov. 30 Wed. 579 May 26 Fri. 579 Nov. 19 Sun. 581 Apr. 5 Sat.	Âshâḍha I       501         Mârgâŝirsha       501         Jyeshtha       502         Mârgaŝirsha       502         Vaiŝâkha I, (w. m i.) Chaitra II       504	15 11 8 24 7 30 7 30 1 36	13 25 6 32 5 47 6 14 0 17	14 34 7 33 7 2 —	15 48 9 15 7 58 —	16 57 10 16 . 9 13 8 46 2 55	t. t. t. 6·1 6·6
581 Sept. 28 Sun. 582 Mar. 25 Wed. 582 Sept. 17 Thur. 583 Mar 14 Sun. 583 Sept. 7 Tues.	Âśvina.       504         Chaitra.       505         Âśvina.       505         Chaitra.       506         Bhâdrapada II, (10. m. i.) Âśvina.       506	7 55 3 58 24 8 4 15 14 59	$\begin{bmatrix} 6 & 37 \\ 2 & 6 \\ 22 & 16 \\ 3 & 1 \\ 13 & 37 \end{bmatrix}$	3 6 23 16	4 50 25 0	9 13 5 50 26 0 5 29 16 21	6·5 t. t. 5·6 7·3
585 Jan. 21 Sun. 585 July 17 Tues. 586 Jan. 11 Fri. 586 July 6 Sat. 586 Dec. 31 Tues.	Magha.       507         Śravana.       508         Magha       508         Śravana I, (ω. m. i.) Śravana.       509         Pausha.       509	11 50 10 56 3 36 13 32 16 5	10 19 9 26 1 44 11 42 14 54	2 45 12 44	- 4 27 14 20 -	13 21 12 26 5 28 15 22 17 16	9·4 9·0 t. t. 5.0

	Hindu Month	Time measured from Lanka mean sunrise, taken as 6 A.M.					Number of
A.D. Year, Month,	nud	Greatest phase.	Begin-		od of curation.	End	twelfths eclipsed.
and Day.	Current Śaka Year.	[i.e. mo- ment of full moon]	ning of Eclipse.	Begin- ning.	End.	of Eclipse.	["t."= total
	["w, m, i." = with mean intercalations.]	h. m.	h. m.	h. m.	h. m.	lı. m.	eclipse.]
1	2	3	4	5	8	7	8
587 June 25 Wed. 588 May 16 Sun. 588 Nov. 9 Tues. 589 May 5 Thur. 589 Oct. 29 Sat.	Âshâḍha       510         Jyeshtha       511         Mârgaśirsha       511         Jyeshtha I, (w. m. i.) Vaiśakha II       512         Karttika       512	23 0 7 58 2 6 24 14 6 0	22 12 6 56 1 5 22 24 4 9	23 25 5 10	25 3 6 50	23 48 9 0 3 7 26 4 7 51	2·2 3·7 3·6 t. t.
590 Apr. 25 Tues. 590 Oct. 18 Wed. 592 Mar. 3 Mon. 592 Aug. 28 Thur. 593 Feb. 21 Sat.	Vaisâkha       513         Kârttika       513         Chaitra 515, (w.m.i.) Phâlguna 514       515         Bhâdrapada       515         Phâlguna       515	11 25 17 16 24 8 13 36 7 26	9 58 15 45 22 53 12 13 5 34	6 34	- - 8 18	12 52 18 47 25 23 14 59 9 18	8·2 9·3 5·8 7·5 t.
503 Aug. 17 Mon. 504 Feb. 10 Wed. 504 Aug. 6 Fri. 505 Dec. 22 Thur. 506 June 15 Fri.	Bhâdrapada.       516         Phâlgana.       516         Bhâdrapada I, (w. m. i.)       Bhâdrapada.       517         Pausha.       518         Âshâḍha.       519	20 54 21 4 22 6 13 9 22 31	19 2 19 44 21 2 11 45 20 48	20 3 — — — 22 3	21 45 — — — 22 50	22 46 22 24 23 10 14 33 24 14	t. 6·8 4·0 7·7 t.
596 Dec. 10 Mon. 597 June 5 Wed. 597 Nov. 29 Fri. 599 Apr. 16 Thur. 599 Oct. 9 Fri.	Pausha       519         Âshâḍha I       520         Mārgaśirsha       520         Vaiśākha       522         Karttika       522	16 31 14 56 15 33 8 44 16 25	14 42 13 10 14 16 7 34 15 9	15 43 14 18 — — —	17 25 15 34 — —	18 26 16 42 16 50 9 54 17 41	t. t. 6·2 4·9 6·0
600 Apr. 4 Mon. 600 Scpt. 28 Wed. 601 Mar. 24 Fri. 601 Scpt. 17 Sun. 603 Feb. 1 Fri.	Vaiśâkha I, (w. m. i.) Chaitra.       523         Âśvina.       523         Chaitra.       524         Âśvina.       521         Mâgha.       525	10 51 8 30 11 23 22 59 20 28	8 59 6 38 10 3 21 33 18 58	10 0 7 39 — — —	11 42 9 21 — —	12 43 10 22 12 43 24 25 21 58	t. t 6·9 8·1 9·1
603 July 28 Sun. 604 Jan. 22 Wed. 604 July 16 Thur. 605 Jan. 10 Sun. 605 July 6 Tues.	Srâvaṇa       526         Mâgha       526         Śrâvaṇa       527         Mâgha       527         Śrâvaṇa       527         Śrâvaṇa I, (w. m. i.) Śrâvaṇa       528	17 32 12 16 20 19 24 34 6 19	16 11 10 24 18 28 23 24 5 15	11 25 19 29	$\begin{bmatrix} -13 & 7 \\ 21 & 9 \\ - \end{bmatrix}$	18 53 14 8 22 10 25 44 7 23	7·0 t. t. 4·9 4·0
606 May 27 Fri. 606 Nov. 20 Sun. 607 May 17 Wed. 607 Nov. 9 Thur. 608 May 5 Sun.	Jyeshtha       529         Mârgaśîrsha       529         Jyeshtha       530         Mârgaśîrsha       530         Jyeshtha I, (w. m. i.) Vaiśâkha II       531	15 28 10 11 7 40 14 27 18 26	14 43 9 10 5 50 12 36 16 53	6 54 13 37	8 26 15 17	16 13 11 12 9 30 16 18 19 59	1·9 . 3·6 t. t. g·9
608 Oct. 29 Tucs. 610 Mar. 15 Sun. 610 Sept. 8 Tucs. 611 Mar. 4 Thur. 611 Aug. 29 Sun.	Kârttika       531         Chaitra       533         Âśvina       533         Chaitra       534         Bhâdrapada       534	1 57 7 34 21 21 15 24 4 4	0 25 6 23 20 3 13 32 2 12	14 32 3 12	- - 16 16 4 56	3 29 8 45 22 39 17 16 5 56	9·6 5·0 6·4 . t. t.
612 Feb. 22 Tues. 612 Aug. 17 Thur. 614 Jan. 1 Tues. 614 June 27 Thur. 614 Dec. 21 Sat.	Phâlguna       534         Bhâdrapada       535         Pausha       536         Âshâdha       537         Pausha       537	$\begin{array}{ccc} 5 & 29 \\ 4 & 54 \\ 21 & 35 \\ 5 & 51 \\ 24 & 41 \end{array}$	$\begin{bmatrix} 4 & 7 \\ 3 & 41 \\ 20 & 11 \\ 4 & 12 \\ 22 & 49 \end{bmatrix}$	5 44 23 50	5 58 25 32	$\begin{bmatrix} 6 & 51 \\ 6 & 7 \\ 22 & 59 \\ 7 & 30 \\ 26 & 33 \end{bmatrix}$	7·2 5·4 7·6 t. t.
615 June 16 Mon. 615 Dec. 10 Wed. 616 June 5 Sat. 617 Apr. 26 Tues. 617 Oct. 19 Wed.	Âshâḍha       538         Pausha       538         Âshâḍha I       539         Vaisâkha       540         Kârttika       540	22 26 23 41 15 10 15 37 24 54	20 37 22 23 14 52 14 39 23 41	21 42	23 10	24 15 24 59 15 28 16 35 26 7	t. 6·5 0·3 3·3 5·5

	Hindu Month	Time measured from Lanka mean sunrise, Ilindu Month taken as 6 A. M.					
A. D. Year, Month,	and	Greatest phase.	Begin-	Peri	od of scuration.	End	twelfths
and Day.	Current Śaka Year.	[i.e. mo- ment of full moon]	ning of Eclipse.	Begin- ning.	End.	of Eclipse.	eclipsed. ["t."= total
	["w.m.i." = with mean intercalations,]	h. m.	h. m.	h. m.	h. m.	h. m.	cclipse.]
1	2	3	4	5	8_	7	8
618 Apr. 15 Sat. 618 Oct. 9 Mon. 619 Apr. 4 Wed. 619 Sept. 29 Sat. 621 Feb. 12 Thur.	Vaiśákha.       541         Kârttika.       541         Vaiśákha I, (w. m. i.) Chaitra.       542         Áśvina.       542         Phâlguna       543	17 · 36 16 · 55 18 · 25 7 · 3 5 · 1	15 46 15 3 16 57 5 35 3 33	16 47 16 4 —	18 25 17 46 —	19 26 18 47 19 53 8 31 6 29	t. t. 8·4 8·5 8·6
621 Aug. 7 Fri 622 Fcb. 1 Mon. 622 July 28 Wed. 623 Jan. 22 Sat. 623 July 17 Sun.	Bhâdrapada I, (w. m. i.) Bhâdapada       544         Mâgha       544         Śrâvaṇa       545         Mûgha       545         Śrâvaṇa       546	24 13 20 51 3 19 8 50 13 37	22 59 18 59 1 27 7 47 12 23	19 59 2 27 —	21 43 4 11 —	25 27 22 43 5 11 10 11 14 51	5·6 t. t. 5·3 5·7
624 June 6 Wed. 624 Nov. 30 Fri. 625 May 27 Mon. 625 Nov. 19 Tues. 626 May 16 Fri.	Âshâḍha       547         Mârgasirsha       547         Jyeshṭḥa       548         Jyeshṭḥa       548         Jyeshṭḥa       549	22 58 18 19 14 53 22 54 25 21	22 35 17 20 13 6 21 3 23 44	14 11 22 4	15 35 23 44 —	23 21 19 18 16 40 24 45 26 58	0·5 3·4 t. t. 11·4
626 Nov. 9 Sun. 628 Mar. 25 Fri. 628 Sept. 19 Mon. 629 Mar. 14 Tues. 629 Sept. 8 Fri.	Mûrgaśirsha       549         Chaitra       551         Âśvina       551         Chaitra       552         Âśvina I, (w, m. i.) Âśvina       552	10 35 14 49 5 11 23 14 11 18	9 3 13 46 3 58 21 22 9 26	22 23 10 27	- - 24 5 12 9	12 7 15 52 6 24 25 6 13 10	9·8 3·9 5·5 t.
630 Mar. 4 Sun. 630 Aug. 28 Tues. 632 Jan. 13 Mon. 632 July 7 Tues. 633 Jau. 1 Fri.	Chaitra 553, (w. m. i.) Phûlguna 552         Bhûdrapada	13 40 11 52 5 54 13 13 8 42	12 14 10 32 4 32 11 39 6 50	7 50	9 34	15 6 13 12 7 16 14 47 10 34	8·1 6·8 7·2 10·4 t.
633 June 27 Sun. 633 Dec. 21 Tues. 634 June 16 Thur. 635 May 7 Sun. 635 Oct. 31 Tues.	Âshâdha       556         Pausha       556         Âshâdha       557         Jyeshtha, (w. m. i.) Jyeshtha I       558         Kârttika       558	5 53 7 45 22 33 22 29 9 37	4 3 6 26 21 49 21 47 8 24	5 5 — — —	6 41	7 43 9 4 23 17 23 11 10 50	t. 6·6 1·8 1·6 5·4
636 Apr. 25 Thur. 636 Oct. 19 Sat. 637 Apr. 14 Mon. 637 Oct. 9 Thur. 639 Feb. 23 Tues.	Vaišákha       559         Kârttika       559         Vaišákha       560         Kârttika       560         Phálguna       561	24 15 25 30 25 22 15 19 13 26	22 25 23 39 23 49 13 49 12 0	23 29 24 40 — —	25 1 26 20 — —	26 5 27 21 26 55 16 49 14 52	t. t. 9·9 9·1 8·0
639 Aug. 19 Thur. 640 Feb. 13 Sun. 640 Aug. 7 Mon. 641 Feb. 1 Thur. 641 July 27 Fri.	Bhàdrapada       562         Phâlgana       562         Bhâdrapada I, (w. m. i.) Bhâdrapada       563         Mûgha       563         Śrâvaṇa       564	7 7 5 21 10 25 17 14 21 2	6 3 3 29 8 33 16 0 19 41	4 29 9 34	6 13 11 16	8 11 7 13 12 17 18 28 22 23	1·0 t. t. 5·7 7·1
642 Dec. 12 Thur. 643 June 7 Sat. 643 Dec. 1 Mon. 644 May 27 Thur. 644 Nov. 19 Fri.	Pausha       565         Åshâdha I, (w.m.i.)       Åshâdha       566         Mârgasîrsha       566         Jyeshtha       567         Mârgasîrsha       567	2 32 22 10 7 27 8 10 19 23	1 32 20 25 5 36 6 28 17 50	21 37 6 37 7 48	22 43 8 17 8 32	3 32 23 55 9 18 9 52 20 56	3·5 t. t. t. 10·1
646 Apr. 5 Wed. 646 Sept. 30 Sat. 647 Mar. 26 Mon. 647 Sept. 19 Wed. 648 Mar. 14 Fri.	Vaišákha, (w. m. i.)       Vaišákha I.       569         Ásvina       569         Chaitra       570         Ásvina       570         Chaitra       571	21 59 13 13 7 0 18 47 21 49	21 5 12 3 5 9 16 56 20 19	6 10 17 57	7 50 19 37	22 53 14 23 8 51 20 38 23 19	2·8 4·8 t. t. 0·1

А. D.	Hindu Month	Time measured from Lanka mean sunrise, taken as 6 A.M.					Number of
Year, Month,	and	Greatest phase,	Begin-		od of curation.	End	twelfths , eclipsed.
and Day.	Current Śaka Year,	(i.e mos	ning of Eclipse.	Begin-	End.	of Erlipse,	['L"= total
27.,1	["w, m, t" = with mean intercalations.]	h, in.	h. m.	h. m.	h. m.	h. m.	eclipse.]
1	2	3	1	5	8	7	8
648 Sept. 7 Sun. 650 Jan. 23 Sat. 650 July 18 Sun. 651 Jan. 12 Wed. 651 July 8 Fri.	Âśvina       571         Māgha       572         Śravaņa       573         Māgha       573         Srāvaņa I, (r. m. i.) Srāvana       574	18 59 14 10 20 43 16 46 13 25	17 34 12 49 19 13 14 54 11 37	15 54 12 85	- 17 35 11 15	20 21 15 31 22 13 15 35 15 19	7·8 7·0 8·9 t. t.
652 Jan. 1 Sun. 652 June 27 Wed. 653 Nov. 10 Sun. 654 May 7 Wed. 654 Oct. 31 Fri.	Pausha       574         Åshådha       575         Mårgasirsha       576         Jyeshtha       (10, 10, 10, 10, 10, 10, 10, 10, 10, 10,	15 52 5 51 18 27 6 47 10 13	11 83 4 52 17 15 5 0 5 22	6 5 9 23	7 20 11 3	17 11 6 50 19 39 8 84 12 4	6·7 3·4 5·3 t. t.
655 Apr. 26 Sun. 655 Oct. 20 Tucs. 657 Mar. 5 Sun. 657 Aug. 29 Tucs. 658 Feb. 23 Fri.	Vnišákha       578         Kárttika       578         Chnitra       580, (e., m. i.) Phálguna       579         Bhádrapada       580         Phálguna       580	5 13 23 35 21 43 14 10 13 42	6 35 22 7 20 21 13 16 11 50	12 50		9 51 25 9 23 5 15 4 15 34	11 · 6 9 · 4 7 · 2 2 · 8 t.
658 Aug. 18 Sat. 659 Feb. 13 Wed. 659 Aug. 8 Thur. 660 Dec. 22 Tucs. 661 June 18 Fri.	Bhà Irapada.       581         Phùlguna.       581         Bhàdrapada I, (w.m.i.) Bhàdrapada.       582         Pausha.       583         Ashàdha.       584	17 43 1 22 4 89 10 45 5 19	15 52 0 7 3 11 9 45 3 38	16 53  5 2	18 33 = = = = = = = = = = = = = = = = = =	19 31 2 37 6 7 11 45 7 0	t. 5 S S·4 3·5 t.
661 Dec. 11 Sat. 662 June 7 Tues. 662 Dec. 1 Thur. 664 Apr. 16 Tues. 664 Oct. 10 Thur.	Pausha       581         Åshådha I. (m.m.i.)       Åshådha       585         Mårga-Ir-ha       585         Vnisåkha       587         Kårttika       587	16 2 14 55 4 16 5 8 21 10	14 11 15 9 2 43 4 30 20 14	15 12 11 19	16 52 15 31 —	17 53 16 41 5 49 5 46 22 21	t. t. 10:0 1:3 4:2
665 Apr. 5 Sat. 665 Sept. 30 Tues. 666 Mar. 26 Thur, 666 Sept. 19 Sat. 668 Feb. 3 Thur.	Vuišákha, (ic, m. i.)       Chaitra II       585         Ásvina.       585         Chaitra       589         Ašvina.       580         Mūgha.       590	14 35 2 22 5 49 2 17 22 18	12 48 0 32 4 16 0 48 20 59	13 49 1 33 ——————————————————————————————————	15 27 3 11 —	16 28 4 12 7 22 3 46 23 37	t. t. 10·1 S·8 6·7
668 July 29 Sat. 669 Jan. 22 Mon. 669 July 18 Wed. 670 Jan. 11 Fri. 670 July 8 Mon.	Śrâvaņa       591         Māgha       591         Śrâvaṇa       592         Māgha       592         Srâvaṇa I, (w. m. i) Śrāvaṇa       593	4 21 24 38 21 5 23 53 13 10	2 57 22 46 19 13 22 32 12 1	23 46 20 13 —	25 30 21 57 —	5 45 26 30 22 57 25 14 14 19	7·6 t. t. 7·1 4·7
671 Nov. 22 Sat. 672 May 17 Mon. 672 Nov. 10 Wed. 673 May 6 Fri. 673 Oct. 31 Mon.	Mûrgasîrsha         504           Jyeshtha         595           Mûrgasîrsha         595           Jyeshtha, (w. m. i.) Jyeshtha I.         596           Kûrttika         596	3 16 13 19 15 59 15 3 8 2	2 4 11 34 17 8 13 21 6 31	12 46 18 9 14 39	13 52 19 49 15 27	4 28 15 4 20 50 16 45 9 33	5 2 t. t. t. 9·5
675 Mar. 17 Sat. 675 Sept. 9 Sun. 676 Mar. 5 Wed. 676 Aug. 28 Thur. 677 Feb. 23 Mon.	Chaitra       598         Âśvina       598         Chaitra 509, (w. m. i.) Phâlguna 598       599         Bhâdrapada       599         Phâlguna       599	5 50 21 18 21 54 23 10 9 21	4 32 20 31 20 2 23 20 8 2	21 2 24 22 —	22 46 25 58	7 8 22 2 23 46 27 0 10 40	6·4 1·S t. t. 6·6
677 Aug. 18 Tucs. 679 Jan. 2 Sun. 679 June 29 Wed. 679 Dec. 22 Thur. 680 June 17 Sun.	Bhadrapala       600         Pausha       601         Åshâdha       602         Pausha       603         Åshâdha       603	12 21 18 55 12 34 24 41 21 37	10 49 17 57 10 58 22 50 19 49	23 51 20 55	25 31 22 19	13 53 19 53 14 10 26 32 23 25	9·8 3·2 11·0 t.

	Hindu Month	Time measured from Lanka mean sunrise, taken as 6 A.M.					Number of
A. D.	and	Greatest	Begin-		od of curation.	End	twelfths
Year, Month,	Current Śaka Year.	[i.e.mo- ment of	ning of Eclipse.	Begin-	End.	of Eclipse.	eclipsed. ["t,"=total
and Day.	["w.m.i" = with mean intercalations.]	fullmoon] h. m.	h. m.	h. m.	h. m.	h. m.	eclipse.]
1	2	3	4	5	6	7	8
680 Dec. 11 Tues. 682 Oct. 22 Wed. 683 Apr. 16 Thur. 683 Oct. 11 Sun. 684 Apr. 5 Tues.	Pausha       603         Kârttika       605         Vaiśâkha       606         Kârttika       606         Vaiśâkha, (w. m. i.) Chaitra II       607	13 11 5 31 22 10 10 2 13 43	11 37 4 29 20 20 8 12 12 6	21 23 9 14 —	22 57 10 50	14 45 6 33 24 0 11 52 15 20	10·2 3·7 t. t. 11·5
684 Sept. 29 Thur. 686 Feb. 14 Wed. 686 Aug. 9 Thur. 687 Feb. 3 Sun. 687 July 30 Tues.	Âśvina       607         Phâlguna,       608         Bhâdrapada       609         Mâgha       609         Śrâvaṇa       610	9. 39 6 16 11 58 8 25 4 44	8 7 5 1 10 41 6 33 2 52	7 34 3 52	9 16 5 36	11 11 7 31 13 15 10 17 6 36	9·7 5·9 6·3 t. t.
688 Jan. 23 Thur. 688 July 18 Sat. 689 Dec. 2 Thur. 690 May 28 Sat. 690 Nov. 22 Tues.	Mûgha       610         Śrâvana       611         Mûrgaśirsha       612         Jyeshtha       613         Mûrgaśirsha       613	7 51 20 32 12 9 19 41 3 51	6 28 19 15 10 57 18 1 2 0	19 31 3 1	- 19 51 4 41	$\begin{array}{c cccc} 9 & 14 \\ 21 & 49 \\ 13 & 21 \\ 21 & 21 \\ 5 & 42 \\ \end{array}$	$7 \cdot 4 \\ 6 \cdot 3 \\ 5 \cdot 2 \\ t. \\ t.$
691 May 17 Wed. 691 Nov. 11 Sat. 693 Mar. 27 Thur. 693 Sept. 20 Sat. 694 Mar. 17 Tues.	Jyeshtha       614         Mûrgasîrsha       614         Chaitra       616         Âśvina       616         Chaitra       617	21 48 16 36 13 53 4 42 5 53	20 2 15 4 12 39 4 11 4 1	21 13 — — — 5 2	22 23 — — — 6 44	23 34 18 8 15 7 5 13 7 45	t. 9·6 5·6 0·9 t.
694 Sept. 9 Wed. 695 Mar. 6 Sat. 695 Aug. 29 Sun. 697 Jan. 13 Sat. 697 July 9 Mon.	Âśvina       617         Chaitra I 618, (w. m. i.) Phâlguna 617.       618         Bhadrapada       618         Mâgha       619         Śrâvaṇa I, (w. m. i.) Śrâvaṇa       620	8 48 17 11 20 13 3 4 19 49	6 58 15 48 18 37 2 8 18 18	8 1 - - -	9 35 — — — —	10 38 18 34 21 49 4 0 21 20	$\begin{array}{c} {\bf t.} \\ {\bf 7\cdot 4} \\ {\bf 10\cdot 9} \\ {\bf 3\cdot 0} \\ {\bf 9\cdot 2} \end{array}$
698 Jan. 2 Wed. 698 June 29 Sat. 698 Dec. 22 Sun. 699 June 18 Wed. 700 Nov. 1 Mon.	Pausha       620         Âshâḍha       621         Pausha       621         Âshâḍha       622         Kârttika       623	$\begin{array}{ccc} 9 & 13 \\ 4 & 21 \\ 22 & 2 \\ 6 & 23 \\ 13 & 46 \end{array}$	7 22 2 31 20 28 5 48 12 48	8 23 3 33 — — —	10 3 5 9 — — —	11 4 6 11 23 36 6 58 14 44	t. t. 10·3 1·1 3·3
701 Apr. 27 Wed. 701 Oct. 21 Fri. 702 Apr. 16 Sun. 702 Oct. 10 Tues. 704 Feb. 25 Mon.	Vaiśákha       624         Kârttika       624         Vaiśákha       625         Kârttika       625         Phâlguna       626	5 39 17 52 21 34 17 20 14 3	3 51 16 2 19 53 15 46 12 52	4 57 17 5 21 15 —	6 21 18 39 21 53 —	7 27 19 42 23 15 18 54 15 14	t. t. t. 10·3 5·1
704 Aug. 19 Tues. 705 Feb. 13 Fri. 705 Aug. 9 Sun. 706 Feb. 2 Tues. 706 July 30 Fri.	Bhâdrapada.       627         Phâlguna.       627         Bhâdrapada.       628         Mâgha.       628         Śrâvaṇa.       629	19 45 16 0 12 27 15 40 3 58	18 33 14 9 10 35 14 15 2 34	15 10 11 36 —	16 50 13 18 —	20 57 17 51 14 19 17 5 5 22	5 2 t. t. 7·9 7·6
707 Dec. 13 Tues. 708 June 8 Fri. 708 Dec. 2 Sun. 709 May 28 Tues. 709 Nov. 21 Thur.	Pausha       630         Âshâḍha       631         Mârgaśirsha       631         Jyeshtha       632         Mârgaśirsha       632	$\begin{bmatrix} 21 & 8 \\ 2 & 7 \\ 12 & 41 \\ 4 & 32 \\ 25 & 9 \end{bmatrix}$	19 57 0 33 10 50 2 43 23 37	 11 51 3 48 -	 13 31 5 16 	22 19 3 41 14 32 6 21 26 41	5·1 10·3 t. t. 9 8
710 May 17 Sat. 711 Apr. 7 Tues. 712 Mar. 27 Sun. 712 Sept. 19 Mon. 713 Mar. 16 Thur.	Jyeshtha.       633         Vaišákha, (w. m. i.)       Vaišákha I.       634         Chaitra.       635         Ásvina.       635         Chaitra.       636	13 43 21 49 13 44 16 33 24 46	13 20 20 43 11 53 14 44 23 19	12 54 15 49	14 34 17 17	14 6 22 55 15 35 18 22 26 13	0·5 4·3 t. t. 8·2

А. D.	Hindu Month	Time	mensured tak	from Lañ en as 6 A		unrise,	Number of
Year, Month,	and	Greatest phase.	Begin-		od of scuration.	End	twelfths celipsed.
and Day.	Current Śaka Year.	[i.e. mo- ment of full moon]	ning of Eclipse.	Begin- ning.	End.	of Eclipse.	["t."=total
	["w, m, i"] = with mean intercalations.]	h. m.	h. m.	h. m.	h. m.	h. m.	eclipse.]
1	2	3	4	5	в	7	. 8
713 Sept. 9 Sat. 715 Jan. 24 Thur. 715 July 21 Sun. 716 Jan. 13 Mon. 716 July 9 Thur.	Âśvina       636         Mâgha       637         Śrâvana       638         Mậgha       638         Śrâvaṇa I, (w. m. i.) Śrâvaṇa       639	4 11 11 3 2 59 17 45 11 4	2 32 10 7 1 35 15 55 9 13	16 56 10 14	18 34 11 54	5 50 11 59 4 23 19 35 12 55	11·9 3·0 7·6 t. t.
717 Jan. 2 Sat. 717 June 28 Mon. 718 Nov. 12 Sat. 719 May 8 Mon. 719 Nov. 1 Wed.	Pausha       639         Âshâḍha       640         Mûrgaśirsha       611         Jyeshtha       642         Kârttika       642	$\begin{array}{ccc} 6 & 51 \\ 12 & 46 \\ 22 & 11 \\ 13 & 4 \\ 25 & 45 \end{array}$	5 17 11 50 21 17 11 18 23 55	  12 28 24 59	13 40 26 31	8 25 13 42 23 5 14 50 27 35	10·4 3·0 2·8 t. t.
720 Apr. 27 Sat. 720 Oct. 20 Sun. 722 Mar. 7 Sat. 722 Aug. 31 Mon. 723 Feb. 24 Wcd.	Vaiśākha       643         Kārttika       643         Chaitra, (w.m.i.) Chaitra I       645         Bhâdrapada       645         Phâlguna       645	5 14 25 1 21 45 3 40 23 30	3 30 23 26 20 38 2 35 21 39	4 42 — — — 22 40	5 46 — — 24 20	6 58 26 36 22 52 4 45 25 21	t. 10·8 4·4 4·2 t.
723 Aug. 20 Fri. 724 Feb. 13 Sun. 724 Aug. 9 Wcd. 725 Dec. 24 Mon. 726 June 19 Wed.	Bhûdrapada       616         Phûlguna.       646         Bhûdrapada I, (v. m. i.) Bhûdrapada.       647         Pausha       648         Âshûdha       649	20 21 23 22 11 31 6 0 8 29	18 30 21 54 10 0 4 48 7 1	19 31	21 11	22 12 24 50 13 2 7 12 9 57	t. 8·6 9·2 5·3 8·4
726 Dec. 13 Fri. 727 June 8 Sun. 727 Dec 3 Wed. 728 May 27 Thur. 729 Apr. 18 Mon.	Pausha       649         Ashadha       650         Mûrgaśirsha       650         Jyeshtha       651         Vaiśākha       652	21 35 11 16 9 44 20 54 5 32	19 41 9 26 8 12 20 3 4 36	20 45 10 27 — —	22 25 12 5 — —	23 26 13 6 11 16 21 45 6 28	t. t. 9·7 2·5 3·0
730 Apr. 7 Fri. 730 Sept. 30 Sat. 731 Mar. 28 Wed. 731 Sept. 20 Thur. 733 Feb. 3 Tues.	Vaiśâkha, (w. m. i.)       Vaiśâkha I.       653         Âśvina.       654         Chaitra.       654         Âśvina.       654         Phâlguna, (w. m. i.)       Mâgha II.       655	21 31 24 28 8 15 12 19 19 0	19 41 22 41 6 44 10 38 18 8	20 43 23 46  11 59	22 19 25 10  12 39	23 21 26 15 9 46 14 0 19 52	t. t. 9·4 t. 2·6
733 July 31 Fri. 734 Jun. 24 Sun. 734 July 20 Tues. 735 Jun. 13 Thur. 735 July 9 Sat.	Śrâvaņa       656         Mâgha       656         Śrâvaṇa       657         Mâgha       657         Śrâvaṇa I, (w. m. i.) Srâvaṇa       658	10 19 2 13 17 46 15 41 19 15	9 3 0 23 15 54 14 10 18 5	1 24 16 54 —	3 2 18 38 —	11 35 4 3 19 38 17 18 20 25	6·0 t. t. 10·4 4·9
736 Nov. 23 Fri. 737 May 18 Sat. 737 Nov. 12 Tues. 738 May 8 Thur. 738 Nov. 1 Sat.	Mârgaśîrsha       659         Jyeshtha.       660         Mârgaśîrsha.       660         Jyeshtha.       661         Kârttika       661	6 36 20 26 9 46 12 50 8 54	5 43 18 43 7 57 11 3 7 17	19 59 9 1 12 11	20 53 10 31 13 29	7 29 22 9 11 35 14 37 10 31	2·7 t. t. t. 11·4
740 Mar. 18 Fri. 740 Sept. 10 Sat. 741 Mar. 7 Tues. 741 Aug. 31 Thur. 742 Feb. 24 Sat.	Chaitra       663         Âśvina       663         Chaitra 664, (w. m. i.) Phâlguna II 663.         Bhâdrapada       664         Phâlguna       664	$\begin{array}{cccc} 5 & 11 \\ 11 & 46 \\ 6 & 49 \\ 4 & 18 \\ 7 & 1 \end{array}$	4 13 10 48 4 59 2 28 5 30	$\begin{bmatrix} - \\ 6 & 1 \\ 3 & 29 \\ - \end{bmatrix}$	- 7 37 5 7	6 9 12 44 8 39 6 8 8 32	3·2 3·2 t. t. 9·5
742 Aug. 20 Mon. 744 Jan. 4 Sat. 744 June 29 Mon. 744 Dec. 24 Thur. 745 June 18 Fri	Bhâdrapada.       665         Pansha       666         Âshûḍha       667         Pansha       667         Âshûḍha       668	19 6 14 51 14 54 6 23 17 59	17 32 13 40 13 36 4 32 16 8	5 33 17 9	7 13 18 49	20 40 16 2 16 12 8 14 19 50	10·2 5·1 6·5 t. t.

	Hindu Month	Time	measured tak	from Land en as 6 A	ka mean s . M.	unrise,	Number of
A. D.	and	Greatest phase.	Begin-		od of scuration.	End	twelfths
Year, Month,	Current Saka Year.	[î.c.mo- ment of	ning of Eclipse.	Begin-	End.	of Eclipse.	eclipsed.
and Day.	["w.m.i." = with mean intercalations.]	fullmoon] h. m.	h. m.	h. m.	h. m.	h. m.	["t." = total eclipse.]
1	2	3	4	5	6	7	8
745 Dec. 13 Mon. 746 June 8 Wed. 747 Apr. 29 Sat. 748 Apr. 18 Thur. 748 Oct. 11 Fri.	Pausha       668         Âshâdha       669         Vaiśâkha       670         Vaiśâkha       671         Kârttika       671	18 15 4 10 13 11 5 8 8 36	16 43 3 4 12 28 3 19 6 49	- - 4 23 7 57	- - 5 53 9 15	19 47 5 16 13 54 6 57 10 23	9·7 4·3 1·7 t.
749 Apr. 7 Mon. 749 Sept. 30 Tues. 751 Feb. 15 Mon. 751 Aug. 11 Wed. 752 Feb. 4 Fri.	Vaiśâkha, (w. m. i.)       Vaiśâkha I.       672         Âśvina.       672         Phâlguna.       673         Bhâdrapada       674         Phâlguna, (w. m. i.)       Mâgha       674	15 34 20 39 2 49 17 40 10 33	13 58 18 56 2 2 16 32 8 43	20 14 — — 9 44	21 4 —	17 10 22 22 3 36 18 48 12 23	$10 \cdot 9$ t. $2 \cdot 1$ $4 \cdot 6$ t.
752 July 30 Sun. 753 Jan. 23 Tues. 753 July 20 Fri. 754 Dec. 4 Wed. 755 May 30 Fri.	Śrâvana       675         Mâgha       675         Śrâvana       676         Mârgaśîrsha       677         Jyeshtha       678	24 37 24 22 1 43 15 0 3 46	22 45 22 46 0 24 14 8 2 7	23 46 — — — —	25 28 — — — —	26 29 25 58 3 2 15 52 5 25	t. 10·9 6·6 2·6 11·9
755 Nov. 23 Sun. 756 May 18 Tues. 756 Nov. 11 Thur. 757 May 8 Sun. 758 Mar. 29 Wed.	Mûrgasîrsha       678         Jyeshtha       679         Mûrgasîrsha       679         Jyeshtha       680         Chaitra       681	17 47 20 21 16 51 13 0 12 26	15 58 18 32 15 13 12 39 11 39	17 2 19 37 — —	18 32 21 5 — — —	19 36 22 10 18 29 13 21 13 13	t. t. 11 · 6 0 · 4 2 · 1
758 Sept. 21 Thur. 759 Mar. 18 Sun. 759 Sept. 11 Tues. 760 Mar. 6 Thur. 760 Aug. 31 Sun.	Âśvina.       681         Chaitra.       682         Âśvina.       682         Chaitra 683, (w. m. i.) Phâlguna II 682.         Bhâdrapada       683	19 58 13 57 12 26 14 30 2 47	19 7 12 7 10 36 12 56 1 11	13 11 11 39 —	14 43 13 13 —	20 49 15 47 14 16 16 4 4 23	2·5 t. t. 10·4 11·1
762 Jan. 14 Thur. 762 July 10 Sat. 763 Jan. 4 Tues. 763 June 29 Wed. 763 Dec. 25 Sun.	Mâgha       684         Śrâvaṇa       685         Pausha       685         Âshâḍha       686         Pausha       686	23 40 21 21 15 12 24 45 2 48	22 30 20 14 13 22 22 53 1 16	14 23 23 53	16 1 25 37	24 50 22 28 17 2 26 37 4 20	4·9 4·5 t. t. 9·7
764 June 18 Mon. 765 May 9 Thur. 766 Apr. 29 Tues. 766 Oct. 22 Wed. 767 Apr. 18 Sat.	Âshâdha       687         Jyeshtha       688         Vaiśâkha       689         Kârttika       659         Vaiśâkha       690	11 19 20 48 12 30 16 50 22 42	10 4 20 30 10 43 15 4 21 3	11 51 16 12 22 42	$ \begin{array}{c cccc}  & - & \\  & - & \\  & 13 & 9 \\  & 17 & 28 \\  & 22 & 42 \end{array} $	12 34 21 6 14 17 18 36 24 21	5·8 0·3 t. t. t.
767 Oct. 12 Mon. 769 Feb. 25 Sat. 769 Aug. 22 Tues. 770 Feb. 14 Wed. 770 Aug. 11 Sat.	Kârttika       690         Phâlguna       691         Bhâdrapada       692         Phâlguna       692         Bhâdrapada       693	5 4 10 33 1 11 18 47 7 32	3 20 9 55 0 13 16 57 5 42	4 34 — — 17 59 6 43	5 34 ————————————————————————————————————	6 48 11 11 2 9 20 37 9 22	t. 1·3 3·3 t.
771 Feb. 4 Mon 771 July 31 Wed. 772 Dec. 14 Mon. 773 June 9 Wed. 773 Dec. 4 Sat.	Phâlguna, (w. m. i.) Mûgha       693         Śrâvaṇa       694         Pausha.       695         Âshûdha       696         Mûrgaśirsha       696	$egin{array}{cccc} 9 & 1 \\ 8 & 22 \\ 23 & 30 \\ 11 & 7 \\ 1 & 53 \\ \end{array}$	$\begin{array}{cccc} 7 & 24 \\ 6 & 54 \\ 22 & 39 \\ 9 & 33 \\ 0 & 4 \end{array}$		2 37	10 38 9 50 24 21 12 41 3 42	11·3 8·4 2·5 10·3 t.
774 May 30 Mon. 774 Nov. 22 Tues. 775 May 19 Fri. 776 Apr. 8 Mon. 776 Oct. 2 Wed.	Jyeshtha       697         Mûrgasîrsha       697         Jyeshtha       698         Vnisakha       699         Âsvina       699	3 50 24 54 20 24 19 36 4 21	2 0 23 16 19 40 19 8 3 37	3 1	4 39 — — — —	5 40 26 32 21 8 20 4 5 5	t. 11·7 1·8 0·7 1·8

	Hindu Month	Time	measured	from Lañ en as 6 A		unrise,	Number of
A.D.	and	Greatest phase.	Begin-	Peri	od of scuration.	End	twelfths
Year, Month, and Day.	Current Śaka Year.	[î.e. mo- ment of	ning of Eclipse.	Begin- ning.	End.	of Eclipse.	celipsed.  ["t."=total
	["w.m.i." = with mean intercalations.]	h. m.	h. m.	h. m.	h. m.	h. m.	eclipse.]
1	2	3	4	5	8	7	8
777 Mar. 28 Fri. 777 Sept. 21 Sun. 778 Mar. 17 Tues. 778 Sept. 11 Fri. 780 Jan. 26 Wed.	Chaitra       700         Âśvina       700         Chaitra       701         Âśvina       701         Mâgha       702	20 58 20 36 21 49 10 36 8 27	19 10 18 47 20 12 8 57 7 18	20 15 19 51 — 10 29	21 41 21 21 — 10 43	22 46 22 25 23 26 12 15 9 36	t. t. 11·5 t. 4·7
780 July 21 Fri. 781 Jan. 14 Sun. 781 July 10 Tues. 782 Jan. 4 Fri. 782 June 29 Sat.	Śrâvaṇa       703         Mâgha       703         Śrâvaṇa       704         Pausha       704         Âshâdha       705	3 53 23 55 7 39 11 15 18 38	2 59 22 5 5 48 9 42 17 15	23 6 6 49 —	24 44 8 29 —	4 47 25 45 9 30 12 48 20 1	2·8 t. t. 9·9 7·5
784 May 9 Sun. 784 Nov. 1 Mon. 785 Apr. 29 Fri. 785 Oct. 22 Sat. 787 Mar. 8 Thur.	Jyeshtha       707         Kârttika       707         Vaiśākha       708         Kârttika       708         Chaitra, (w. m. i.) Chaitra I       710	19 56 25 10 5 42 13 38 18 8	18 11 23 24 3 59 11 53 17 40	19 23 24 34 5 15 13 5	20 29 25 46 6 9 14 11	21 41 26 56 7 25 15 23 18 36	t. t. t. t.
787 Sept. 2 Sun. 788 Feb. 26 Tues. 788 Aug. 21 Thur. 789 Feb. 14 Sat. 789 Aug. 10 Mon.	Bhâdrapada       710         Phâlguna       710         Bhâdrapada       711         Phâlguna       711         Bhâdrapada       712	8 46 2 58 14 33 17 31 15 4	7 59 1 8 12 43 15 52 13 31	2 11 13 47 —	3 45 15 19 —	9 33 4 48 16 23 19 10 16 37	2·1 t. t. 11·9 10·0
790 Dec. 26 Sun. 791 June 20 Mon. 791 Dec. 15 Thur. 792 June 9 Sat. 792 Dec. 3 Mon.	Pausha       713         Âshâḍha       714         Pausha       714         Âshâḍha       715         Mârgaśîrsha       715	7 52 18 25 10 1 11 23 9 0	7 3 16 57 8 13 9 32 7 22	9 18 10 33	10 44 12 13	8 41 19 53 11 49 13 14 10 38	2·3 8·6 t. t. 11·8
793 May 30 Thur. 794 Oct. 13 Mon. 795 Apr. 9 Thur. 795 Oct 3 Sat. 796 Mar. 28 Mon.	Jyeshtha       716         Kârttika       717         Vaisákha       718         Âśvina       718         Chaitra       719	3 43 12 52 3 49 4 54 5 2	2 43 12 13 2 3 3 6 3 21	3 13 4 12 4 43		4 43 13 31 5 35 6 42 6 43	3·5 1·4 t. t. t.
796 Sept. 21 Wed. 798 Feb. 5 Mon. 798 Aug. 1 Wed. 799 Jan. 26 Sat. 799 July 21 Sun.	Âśvina.       719         Phâlguna, (w. m. i.) Phâlguna I.       720         Śrâvaṇa.       721         Mâgha.       721         Śrâvaṇa.       722	18 33 17 4 10 39 8 33 14 38	16 52 15 58 10 0 6 43 12 43	18 14 — 7 44 13 50	18 52 — 9 22 15 26	20 14 18 10 11 18 10 23 16 28	t. 4·3 1·4 t. t.
800 Jan. 15 Wed. 800 July 10 Fri. 802 May 21 Sat. 802 Nov. 13 Sun. 803 May 10 Wed.	Mâgha       722         Śrâvana       723         Jyeshtha       725         Mârgasîrsha       725         Jyeshtha       726	19 41 1 59 3 16 9 41 12 38	18 8 0 28 1 36 7 55 10 52	$\begin{array}{cccc} - & & & \\ 3 & 0 & \\ 9 & 5 & \\ 12 & 2 & \end{array}$	3 32 10 17 13 14	21 14 3 30 4 56 11 27 14 24	10·1 9·4 t. t. t.
803 Nov. 2 Thur. 805 Sept. 12 Fri. 806 Mar. 8 Sun. 806 Sept. 1 Tues. 807 Feb. 26 Fri.	Kârttika       726         Âśvina       728         Chaitra, (w. m. i) Chaitra I       729         Bhâdrapada       729         Phâlguna       729	22 16 16 28 10 59 21 37 1 52	20 31 15 53 9 10 19 49 0 12	21 42 10 14 20 55 1 40	22 50  11 44 22 19 2 4	24 1 17 3 12 48 23 25 3 32	t. 1·1 t. t. t.
807 Aug. 21 Sat. 809 Jan. 5 Fri. 809 July 1 San. 809 Dec. 25 Tucs. 810 June 20 Thur.	Bhâdrapada.       730         Pausha, (w. m. i.) Pausha II.       731         Âshâḍha       732         Pausha.       732         Âshâḍha       733	21 56 16 16 1 50 18 2 18 48	20 19 15 27 0 30 16 14 16 56	  17 19 17 56	18 45 19 40	23 33 17 5 3 10 19 50 20 40	11:4 2:3 6:9 t. t.

### ECLIPSES OF THE MOON IN INDIA.

	Hindu Month	Time		from Iaúl en as G A		unrisc,	Number of
A. D. Year, Month.	and	Greatest phase,	Begin-	1	od of curation.	End	twelfths
and Day.	Current Saka Year,	fir. mo- ment of	ning of Eclipse.	Begin.	End.	of Eclipse.	cclipsed. ["t."=total
and Day.	["10, 111, i." in with mean intercalations.]	fallmoon)	1. m.	h. m.	h. m.	h. m.	celipse.]
1	2	3	1	5	8	7	8
\$10 Dec. 14 Set. \$11 June 10 Tues. \$12 Oct. 23 Set. \$13 Apr. 19 Tues. \$13 Oct. 13 Thur.	Pausha       783         Åshådha       784         Köritika       735         Vaisätha       736         Käritika       736	17 9 11 9 21 29 10 35 13 26	15 29 9 51 20 54 8 52 11 59	16 5p 10 9 12 16	17 19  11 1 14 6	18 49 12 13 22 1 12 18 15 13	t. 5·0 1·1 t. t.
\$14 Apr. \$ Sat. \$14 Oct. 3 Tues. \$16 Peb. 17 Sun. \$17 Peb. 5 Thur. \$17 July \$1 Pci.	Vaišākha	71 41 12 21 13 24 15 6	10 21 0 33 0 31 13 17 10 25	11 87 2 12 16 19 21 2	12 59 3 4 17 55 22 52	13 52 4 21 2 37 18 57 23 36	t. 3.9 t. t.
\$18 Jan. 26 Tact. \$18 July 21 Wed. \$20 May 31 Thur. \$20 Nov. 23 Fri. \$21 May 20 Mon.	Megha. 740 Selvano. 741 Jeoghtha 743 Microstreba 743 Jacobtha 743	4 1 9 21 10 24 15 11 19 24	2 01 7 15 8 31 16 24 17 33	17 38 18 40	15 30 gn 5	5 35 11 0 12 1 49 0 21 13	10/3 10/9 10/7 t.
S21   Nov. 13 Wed.   S22   Nov. 2 Sun.   S23   Sept. 24 Thur.   S24   Mar. 18 Vri.   S24   Sept. 12 Mon.	Minerifects 743 Exertifia 745 Āfrina 746 Chalten 747 Āfrina 747	22 47 0 17 15 54 4 55	5 19 21 29 0 6 17 7 5 7	6 59 15 12 1 16		5 10 23 5 0 25 20 41 6 39	t. 0:3 0:1 t
525 Mar. S Wed. 525 Sept. I Fri. 527 July 12 Fri. 527 July 12 Fri. 528 Jan. 6 Men.	Chaîtra, (w. m. s') Chaîtra I	10 5 4 55 24 50 9 19 2 3	5 26 3 11 23 45 8 6 0 15	9 41 4 3-	10 52 5 12	11 50 6 36 25 15 10 32 3 51	t. t. 1+9 5+5
\$25 July 1 Wed. \$28 Dec. 24 Thur. \$29 June 20 Sun. \$30 Nov. 4 Fri. \$31 Apr. 30 Sun.	Åchfolka 751 Pavelia 751 Åchfolka 752 Kärttika 753 Valvätka 753	9 20 25 19 15 18 6 10 17 9	0 28 27 59 28 59 5 45 45 51	1 28 25 9	3 12 25 29	4 12 26 59 19 57 6 41 18 47	6. 6.6 0.7 11.5
<ul> <li>831 Oct. 24 Tacs.</li> <li>832 Apr. 18 Thur.</li> <li>832 Oct. 13 Sun.</li> <li>833 Apr. 8 Tucs.</li> <li>834 Pcb. 27 Fri.</li> </ul>	Kerttike. 751 Veifakhs 755 Kerttike. 755 Veifakha 756 Phälgona. 756	21 57 19 10 10 47 3 49 9 55	20 11 17 23 9 3 3 29 5 38	21 19 15 31 10 17	22 85 19 19 11 17	23 43 24 57 12 31 3 51 10 52	t. t. t. 0 1 3·1
\$35 Feb. 16 Turs, 535 Aug. 12 Thur, 536 Feb. 6 Sun, 536 July 31 Mon, 538 June 11 Turs,	Philipuna.       747         Bhildrapada.       758         Philipuna.       60. 20. 40.       Méolia II.       758         Schrapa.       750         Ashidha.       761	25 80 5 8 12 8 16 57 17 86	23 40 3 16 10 34 15 17 16 6	21 43 4 23 16 43	26 17 5 43 17 9	27 20 6 50 13 42 18 37 19 6	t. t. 10+5 t. n+0
838 Dec. 5 Thur. 839 June 1 San. 839 Nov. 24 Mon. 840 May 20 Thur. 840 Nov. 13 Sat.	Mårradreha       761         Jyeshtha       762         Mårradreha       762         Jyeshtha       763         Mårgadreha       763	2 53 2 5 15 51 4 4 7 36	1 7 0 15 14 8 3 25 7 18	2 18 1 10 15 18	3 28 2 54 16 80	4 39 3 55 17 40 4 43 7 59	t. t. t. 1 · 4 0 · 5
842 Mar. 30 Thur. 812 Sept. 23 Sat. 843 Mar. 19 Mon. 813 Sept. 12 Wed. 815 Jan. 27 Tues.	Chaiten       765         Aśvina       765         Chaiten       760         Áśvina       766         Māgha       767	2 40 12 18 18 17 12 6 8 38	0 54 10 33 16 33 10 23 7 59	2 3 11 45 17 46 11 38	3 17 12 51 18 48 12 31	4 26 14 3 20 1 13 49 9 18	t. t. t. 1.5

	Hindu Month	Time	measured tak	from Landen as 6 A		unrise,	Number of
A.D	апд	Greatest	Begin-		od of	End	twelfths
. Year, Month,	Current Śaka Year.	[i.e. mo- ment of	ning of Eclipse.	Begin-	End.	of	eclipsed.
and Day.	. ["w.m.i." = with mean intercalations.]	fullmoon h. m.	h. m.	ning.	h. m.	Eclipse.	["t."=total eclipse.]
1	2	3	4	5	6	h. m.	8
845 July 22 Wed.	Śrâvaṇa 768	16 49	15 44	-		17 54	4.1
846 Jan. 16 Sat. 846 July 12 Mon.	Mågha	10 0 9 52	8 13	$\begin{array}{c cccc} 9 & 18 \\ 9 & 2 \end{array}$	10 42	11 47	t. t.
847 Jan. 5 Wed. 847 July 2 Sat.	Pausha       769         Âshâḍha       770	9 26	7 46	9 12	9 40	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	t. 8·2
848 Nov. 14 Wed.	Mârgaśîrsha 771	15 1	14 35	_		15 27	0.6
849 May 10 Fri. 849 Nov. 4 Mon.	Jyeshtha	23 42 6 42	22 9 4 56	6 6	7 18	25 15 8 28	, 10•1 t.
850 Apr. 30 Wed. 850 Oct. 24 Fri.	Vaiśâkha.       773         Kârttika.       773	$\begin{bmatrix} 2 & 0 \\ 19 & 1 \end{bmatrix}$	0 11 17 17	1 15 18 29	2 45 19 33	3 49 20 45	t. t.
851 Apr. 19 Sun.	Vaiśâkha774	11 11	10 . 33 17 22	<b>-</b> .	_	11 49 19 0	$1\cdot 3 \\ 2\cdot 3$
852 Mar. 9 Wed. 853 Feb. 27 Mon.	Chaitra	18 11 9 42	7 53	8 57	10 27	11 31	t.
853 Aug. 22 Tues. 854 Feb. 16 Fri.	Bhâdrapada	12 23 20 9	10 38 18 33	11 49	12 57	$\begin{vmatrix} 14 & 8 \\ 21 & 45 \end{vmatrix}$	t. 11·1
854 Aug. 11 Sat. 856 June 21 Sun.	Bhâdrapada	24 38 24 43	22 55 23 21	24 10	25 6	26 21 26 5	$rac{ ext{t.}}{7 \cdot 2}$
856 Dec. 15 Tues.	Pausha	11 28 8 44	9 42 6 52	10 52 7 53	12 4 9 35	13 14 10 36	t. t.
857 June 11 Fri. 857 Dec. 4 Sat.	Ashâdha	24 46	23 0	24 10	25 22	26 32	t.
858 May 31 Tues. 858 Nov. 24 Thur.	Jyeshtha	10 29 16 27	9 31 16 6		_	11 27 16 48	3·3 0·4
860 Apr. 9 Tues. 860 Oct. 3 Thur.	Vaišākha. 783 Āśvina 783	10 25 19 50	8 41 18 7	9 54	10 56 20 16	12 9 21 33	t. t.
861 Mar. 30 Sun.	Chaitra784	2 18	0 32	1 41	2 55	4 4	t.
861 Sept. 22 Mon. 863 Feb. 7 Sun.	Âśvina	19 27 16 38	17 42 16 7	18 52	20 2	21 12 17 9	t. 0·9
863 Aug. 2 Mon. 864 Jan. 27 Thur.	Śrâvaṇa.       786         Mûgha.       786	24 28 17 53	23 35 16 6	17 13	 18 33	25 21 19 40	2 · 7 · t.
864 July 22 Sat.	Šrâvaņa	17 28	15 38	16 39	18 17	19 18	t.
865 Jan. 15 Mon. 865 July 12 Thur.	Mûgha	17 28 8 47	15 47 7 14	17 9	17 47 —	19 '9 10 20	t. 10·0
866 Nov. 25 Mon. 867 May 22 Thur.	Mårgasîrsha	23 54 6 6	23 26 4 40	1 1	1	$\begin{array}{cccc} 24 & 22 \\ 7 & 32 \end{array}$	0·7 8·0
867 Nov. 15 Sat.	Margasirsha	15 .25	13 39	14 49	16 1	17 11	t.
868 May 10 Mon. 868 Nov. 4 Thur.	Jyeshtha	8 52 3 22	$\begin{array}{c cccc} 7 & 2 \\ 1 & 37 \end{array}$	8 3 2 48	$\begin{array}{ccc} 9 & 41 \\ 3 & 56 \end{array}$	$\begin{bmatrix} 10 & 42 \\ 5 & 7 \end{bmatrix}$	, t.
869 Apr. 29 Fri. 870 Mar. 21 Tues.	Vaiśâkha       792         Chaitra       793	18 32, 2 17	17 37	1 1	_	$ \begin{array}{c cccc} 19 & 27 \\ 2 & 57 \end{array} $	$2 \cdot 9$ $1 \cdot 5$
871 Mar. 10 Sat.	Chaitra 794	17 50	16 2	17 8	18 32	19 38	t.
871 Sept. 2 Sun. 872 Feb. 28 Thur.	Bhâdrapada	$\begin{array}{ccc} 19 & 57 \\ 4 & 3 \end{array}$	18 14 2 25	19 30	20 24	$\begin{array}{cc} 21 & 40 \\ 5 & 41 \end{array}$	t. 11.8
872 Aug. 22 Fri. 874 July 3 Sat.	Bhûdrapada	8 24 7 51	6 38 6 38	7 49	8 59	10 10 9 4	t. 5·4
874 Dec. 26 Sun.	Pausha	20 9	18 23	19 33	20 45	21 55	t. +
875 June 22 Wed. 875 Dec. 16 Fri.	Âshâḍha       798         Pausha       798	15 22 9 40	13 30 7 54	$\begin{bmatrix} 14 & 30 \\ 9 & 4 \end{bmatrix}$	16 14 10 16	17 14 11 26	t. t. 5 · 2
876 June 10 Sun. 876 Dec. 5 Wed.	Ashadha	16 51	15 39	— —		18 3 1 40	0.4
878 Apr. 20 Sun.	Vaiśâkha 801	17 54	16 13	17 34	18 14	19 35	t.

A. D.	Hindu Month	Time		from Iaúl cn as 6 A		unrise,	Number of
Year, Month.	bna	Greatest phase.	Begin-		ed of curation.	End	twelfths celipsed.
and Day.	Current Saka Year.	li.e. mo- ment of	ning of Ediper.	Begin-	End.	of Edipse.	["L"=total
,,,,	["w.m.L" in with mean intercalations.]	h, in.	h. m.	h. m.	h. m.	h. m.	celipse.]
1	2	3	1	5	8	7	8
\$78 Oct, 15 Wed. \$79 Apr. 10 Pri. \$79 Oct. 4 Sun. \$50 Mar. 30 Wed. \$50 Sept. 22 Thur.	Kārtlika       801         Vaiššķia       802         Ārtina       802         Chaitra       803         Āšvina       803	3 29 10 6 2 57 2 94 6 11	1 48 8 18 1 11 2 17 5 51	3 9 9 21 2 10	3 49 10 45 3 33	5 10 11 51 4 43 2 30 6 37	t. t. t. 0·1 0·5
881 Feb. 18 Sat. 881 Aug. 13 Sun. 882 Feb. 6 Torn. 882 Aug. 2 Thur. 883 Jan. 26 Sat.	Philiguna         503           Bhidrapada         504           Philipuna         504           Stianna         505           Mhohn         505	0 27 8 19 24 31 25 6 25 26	0 9 7 31 23 15 23 17 23 11	21 51 21 21 25 2	26 8 25 51 25 50	0 45 5 52 27 17 26 55 27 5	0·3 1·4 t. t.
\$83 July 23 Tors. \$84 Dec. 6 Son. \$85 June 1 Toes. \$85 Nov. 23 Thur. \$86 May 21 Sat.	Śrbana. 80% Mirraffella (w. m. d) Mirgaffela II. 80% Jacobilo. 80% Mirgaffelia 80% Jacobilo. 80%	10 9 8 44 12 33 24 12 15 10	16 52 8 21 11 13 22 27 13 31	23 57	24 47 16 37	17 46 9 7 13 51 25 57 17 35	11 2 0·5 6·4 t.
\$56 Nov. 15 Tace. \$57 May 11 Thur. \$58 Mar. 31 Sun. \$59 Mar. 20 Thur. \$59 Sept. 18 Sut.	Microfiels 207 Jyolitha 510 Chaites 511 Chaites 12	25 45	10 d 0 44 9 53 23 59 7	1	20 23	13 52 5 4 10 59 107 51 5 62	t. 4+6 0-5 t.
890 Mar. 10 Too. 890 Sept. 2 Wed. 891 Aug. 23 Men. 892 July 13 Thor. 893 Jan. 6 Sat.	Chaites       513         Bhidragods       523         Bhidragods       514         Srivagos       515         Migha, (m. 20, 2) Pavila II       515	11 45 16 19 5 46 14 55 4 45	10 2 14 52 4 16 13 55 3 2	11 26 15 39 4 12	12 n 16 c9	13 24 18 6 9 16 16 1 6 04	1. 3. 0.8 3.9
623 July 2 Mon. 693 Dec. 26 Wed 694 June 21 Fri. 894 Dec. 16 Men. 696 Apr. 30 Fri.	Åshälla       516         Panela       516         Åshalla       517         Paneha       517         Valifilia       519	22 1 18 23 23 14 10 11 25 26	20 10 16 47 21 52 2 45 23 45	21 11 17 57	22 61	23 52 20 19 24 56 10 34 27 4	t. 7-2 0-5 11-6
596 Oct. 25 Mon. 597 Apr. 29 Wed. 597 Oct. 14 Pri. 598 Apr. 10 Mon. 598 Oct. 3 Tacs.	Körttika. 510 Vaifikko 820 Kertfika. 520 Vaifika. 521 Äftika. 521	11 13 17 51 10 55 10 16 14 9	9 33 16 2 5 15 9 41 13 31	i		12 53 19 40 12 22 10 51 14 47	t. t. 1:1 1:3
699 Aug. 24 Fri. 900 Feb. 18 Mon. 900 Aug. 13 Wed. 901 Feb. 6 Fri. 901 Aug. 2 Sun.	Blidrapids   \$22   Philyona   \$22   Blidrapids   \$23   Blidrapids   \$23   Philyona   \$23   \$23   \$24   \$24	16 4 9 7 8 51 9 19 23 31	15 41 7 22 7 4 1 36 21 59	\$ 33 \$ 10 \$ 52 23 14	9 41 9 32 9 46 23 48	16 27 10 32 10 38 11 2 25 12	0 · 5 t. t. t.
902 Dec. 17 Fri. 903 June 12 Sun. 903 Dec. 7 Wed. 904 May 31 Thur. 904 Nov. 25 Sun.	Pausha       825         Ashfelha       826         Margastreha       826         Jyeshtha       827         Margastreha       827	17 45 19 0 9 1 92 38 20 17	17 22 17 53 7 15 20 41 18 32	8 25 21 41 10 43	9 87 23 25 20 51	18 8 20 7 10 47 24 25 22 2	0 5 4·5 t. t. t.
905 May 21 Tues. 907 Apr. 1 Wed. 907 Sept. 24 Thur. 908 Mar. 20 Sun. 908 Sept. 12 Mon.	Jyeshtha       828         Chuitra       830         Ásvina       830         Chaitra       831         Ásvina       831	9 13 9 32 11 32 19 11 21 23	7 57 7 47 9 53 17 29 22 31	8 58 18 44 23 39	10 6 10 38 25 7	10 29 11 17 13 11 20 54 26 12	6:0 t. 11:9 t. t.

	Hindu Month	Time	measured take	from Lanl en as 6 A		unrise,	Number of
A. D. Year, Month,	and	Greatest phase.	Begin-		od of curation.	End of	twelfths eclipsed.
and Day.	Current Śaka Year. ["w.m.i." = with mean intercalations.]	[i.e. mo- ment of full moon]	Eclipse.	Begin- ning.	End.	Eclipse.	["t."=total
1	2	h. m.	h. m.	h. m.	h. m.	h. m.	eclipse.]
909 Sept. 2 Sat.	Bhâdrapada	16 46	16 4		<u> </u>	17 28	1.6
910 July 24 Tucs. 911 Jan. 17 Thur. 911 July 14 Sun. 912 Jan. 7 Tucs.	Śrâvaņa.       833         Mâgha.       838         Śrâvaņa       834         Mâcha.       834	$egin{array}{cccc} 22 & 7 \ 13 & 22 \ & 4 & 38 \ & 3 & 22 \ \end{array}$	$\begin{bmatrix} 21 & 19 \\ 11 & 37 \\ 2 & 48 \\ 1 & 36 \end{bmatrix}$	$\begin{array}{c cccc} & - & \\ 12 & 47 \\ 3 & 50 \\ 2 & 46 \end{array}$	13 57 5 26 3 58	$\begin{bmatrix} 22 & 55 \\ 15 & 7 \\ 6 & 28 \\ 5 & 8 \end{bmatrix}$	2·2 · t. t. t.
912 Jan. 7 Tues. 912 July 2 Thur.	Mågha, (w. m. i)       Pausha II	5 38	4 8	2 <del>4</del> 0	_	5 8	8·9
912 Dec. 26 Sat. 914 May 12 Thur.	Pausha	19 4 8 57	18 41 7 24			19 27 10 30	0·5 10·1
914 Nov. 5 Sat. 915 May 1 Mon.	Kârttika       837         Vaiśâkha       838	19 9 25 37	17 29 23 47	18 · 59 24 48	19 19 26 26	20 49 27 27	t. t.
915 Oct. 25 Wed. 916 Apr. 20 Sat.	Kârıtika	18 21 17 55	16 33 17 5	17 38	19 4	20 9 18 45	t. 2·4
916 Oct. 13 Sun. 918 Feb. 28 Sat.	Kârttika	22 12 16 34	21 28 14 51	16 6	17 2	22 56 18 17	1·8 t.
918 Aug. 24 Mon. 919 Feb. 17 Wed.	Bhâdrapada         841           Phâlgupa         841	16 42 17 6	14 56 15 22	16 6 16 34	17 18 17 38	18 28 18 50	t. t.
919 Aug. 14 Sat. 920 Dec. 28 Thur.	Bhâdrapada       842         Pausha       843	6 58 2 37	5 14 2 14	6 27 —	7 29 —	8 42 3 0	t. 0·5
921 June 23 Sat. 921 Dec. 17 Mon.	Âshâḍha       844         Pausha       844	1 25 17 54	0 33 16 9	17 19	18 29	2 17 19 39	2·6 t.
922 June 12 Wed. 922 Dec. 7 Sat.	Âshâḍha       845         Mârgaśirsha       845	$\begin{array}{ccc} 5 & 25 \\ 4 & 47 \end{array}$	3 34 3 2	4 35 4 13	6 15 5 21	7 16 6 32	t. t.
923 June 1 Sun. 925 Apr. 11 Mon.	Jyeshtha       846         Vaiśakha       848	16 29 17 10	15 4 15 28	16 47	17 33	17 54 18 52	.7·9 t.
925 Oct. 4 Tues. 926 Apr. 1 Sat.	Åśvina	19 - 36 2 31	17 59 0 46	 1 56	3 6	21 13 4 16	11·3 t.
926 Sept. 24 Sun. 927 Sept. 14 Fri.	Âśvina       849         Âśvina       850	8 36 0 53	6 46 0 2	7 50 —	9 <b>22</b> —	10 26 1 44	t. 2·5
928 Aug. 4 Mon. 929 Jan. 27 Tues.	Srâvaņa.       851         Mâgha       851	5 22 21 52	$\begin{array}{c cc} 4 & 59 \\ 20 & 7 \end{array}$	21 19	22 25	5 45 23 37	0·5 t.
929 July 24 Fri. 930 Jan. 17 Sun.	Śrûvaṇa	11 19 12 11	9 31 10 25	10 37 11 34	12 1 12 48	13 7 13 57	t. t.
930 July 13 Tues. 931 Jan. 7 Fri.	Śrâvaṇa.       853         Mâgha.       853	12 8 3 53	10 33 3 32		1 1	13 43 4 14	10·8 0·4 8·5
932 May 22 Tues. 932 Nov. 16 Fri.	Jyeshtha	16 20 3 6	14 52 1 28	_	_	17 48 4 44	11.7
933 May 12 Sun. 933 Nov. 5 Tues.	Jyeshtha.       856         Kûrttika.       856	9 10 2 23	7 18 0 34	8 19 1 39.	$\begin{array}{ccc} 10 & 1 \\ 3 & 7 \end{array}$	$\begin{array}{c c} 11 & 2 \\ 4 & 12 \end{array}$	t. t.
934 May 2 Fri. 934 Oct. 25 Sat.	Vaiśâkha	$\begin{array}{ccc} 1 & 22 \\ 6 & 24 \end{array}$	0 20 5 36	_	_	2 24 7 12	$3 \cdot 8$ $2 \cdot 2$
936 Mar. 10 Thur. 936 Sept. 3 Sat.	Chaitra       859         Bhâdrapada       859	23 48 24 36	22 7 22 52	23 29 24 6	24 7 25 6	25 29 26 20	t. t.
937 Feb. 27 Mon. 937 Aug. 24 Thur. 938 Feb. 17 Sat.	Phâlguna	24 45 14 31	22 59 12 45	24 9 13 55	25 21 15 7	26 31 16 17 8 9	t. t. 0·1
939 Jan. 8 Tues.	Phâlguna       860         Mâgha, (v. m. i.) Mâgha I       861	7 58 11 25	$egin{bmatrix} 7 & 47 \ 11 & 2 \end{bmatrix}$	_	_	11 48	0.2
939 July 4 Thur. 939 Dec. 29 Sun.	Ashâdha       862         Pausha       862	7 57 2 40	7 27 0 55	2 7	3 13	8 27 4 25	. 0.8 t.
940 June 22 Mon. 940 Dec. 17 Thur.	Âshâḍha       863         Pausha       863	12 15 13 19	10 25 11 34	11 27 12 44	$\begin{array}{ccc} 13 & 3 \\ 13 & 54 \end{array}$	14 5 15 4	t. t.

A, D,	Hindu Month	Time		from Landen as 5 A		unrise,	Number of
Year, Month,	and	Greatest phase.	Begin-	1 -	od of curation.	End	twelfths eclipsed.
and Day.	Current Śaka Year.	[i.c. mo- ment of	ning of Eclipse.	Begin- ning.	End.	of Eclipse.	["t."= total
2	["w.m.i." = with mean interculations.]	fullmoon) h. m.	h. m.	h. m.	h. m.	h. m.	eclipse.]
1	2	3	4	5	6	7	- 8
941 . June 11 Fri. 943 Apr. 22 Sat. 943 Oct. 16 Mon. 944 Apr. 11 Thur. 944 Oct. 4 Fri.	Âshâḍha       864         Vniśâkha       866         Kârttika       866         Vaiśâkha       867         Âśvina       867	23 47 24 43 8 49 9 43 16 55	22 15 23 4 2 14 7 56 15 5	9 2 16 8	10 24 17 42	25 19 26 22 5 24 11 30 18 45	9.6 11.9 10.8 t. t.
945 Sept. 24 Wed. 947 Feb. 8 Mon. 947 Aug. 4 Wed. 948 Jun. 28 Fri. 948 July 23 Sun.	Âśvina       868         Phâlgana       869         Śrâvaṇa       870         Mâgha       870         Śrâvaṇa       871	9 9 6 15 18 6 20 57 18 41	8 11 4 31 16 29 19 10 17 0	5 44 17 30 20 18 18 24	6 46 18 42 21 36 18 58	10 7 7 59 19 52 22 44 20 22	3·2 t. t. t.
949 Jan. 17 Wed. 950 June 2 Sun. 950 Nov. 27 Wed. 951 May 23 Fri. 951 Nov. 16 Sun.	Mågha       871         Jyeshtha       873         Mårgaširsha       873         Jyeshtha       874         Mårgaširsha       874	12 36 23 46 11 7 16 43 10 21	12 13 22 25 9 30 14 51 8 32	15 51 9 36		12 59 25 7 12 44 18 35 12 10	0·5 7·0 11·5 t. t.
952 May 12 Wed. 952 Nov. 4 Thur. 954 Mar. 22 Wed. 954 Sept. 15 Fri. 955 Mar. 11 Sun.	Jyeshtha.       875         Kârttika.       875         Chaitra.       877         Aśvina.       877         Chaitra.       878	8 49 14 43 6 55 8 46 8 11	7 37 13 51 5 17 7 4 6 24	- - 8 24 7 30	 9 8 8 52	10 1 15 35 8 33 10 28 9 58	5·2 2·6 11·7 t. t.
955 Sept. 4 Tues. 956 Feb. 28 Thur. 957 Jan. 18 Sun. 958 Jan. 8 Fri. 958 July 3 Sat.	Bhàdrapada.       \$78         Phâlguna       \$78         Mâgha.       \$79         Mâgha, (w. m. i.)       Mâgha I.       \$50         Âshâdha.       \$81	22 11 16 1 20 15 11 24 19 9	20 24 15 30 20 0 9 39 17 20	21 30  10 51 18 26	22 52 — — 11 57 19 52	23 58 16 32 20 30 13 9 20 58	t. 0·9 0·2 t. t.
958 Dec. 28 Tues. 959 June 23 Thur. 961 May 3 Fri. 961 Oct. 26 Sat. 962 Apr. 22 Tues.	Pausha       SS1         Âshadha       SS2         Vaiśâkha       8S4         Kârttika       8S4         Vaiśâkha       8S5	21 44 7 6 8 3 12 7 16 45	19 59 5 29 6 29 10 33 14 56	21 9 - - 16 0	22 19 — — — 17 30	23 29 S 43 9 37 13 41 15 34	t. 11·2 10·3 10·4 t.
962 Oct. 15 Wcd. 963 Apr. 11 Sat. 963 Oct. 5 Mon. 965 Feb. 18 Sat. 965 Aug. 14 Mon.	Kârttika       885         Vnisâkha       886         Âśvina       886         Phâlguna       887         Bhâdrapada       888	25 24 18 40 17 28 14 31 24 58	23 84 18 19 16 25 12 48 23 15	24 35 — — 14 3 24 33	26 13 — — — — — — — — — — — — — — — — — —	27 14 19 1 18 31 16 14 26 41	t, 0·4 3·9 t, t.
966 Feb. 8 Thur. 966 Aug. 3 Fri. 967 Jan. 28 Mon. 968 June 13 Sat. 968 Dec. 7 Mon.	Phâlguna       888         Śrâvana       859         Mâgha       859         Âshâdha       891         Mârgasîrsha, (w. m. î.)       Mârgasîrsha II.       891	5 29 25 18 21 16 7 4 19 10	3 42 23 33 20 46 5 52 17 33	4 48 24 45 — — —	6 10 25 51 — —	7 16 27 3 21 46 8 16 20 47	t. t. 0·8 5·3 11·3
969 June 2 Wed. 969 Nov. 26 Fri. 970 May 23 Mon. 970 Nov. 15 Tues. 972 Apr. 1 Mon.	Jyeshtha.       892         Mårgasirsha       892         Jyeshtha.       893         Mårgasirsha       893         Chaitra.       895	24 12 18 25 16 7 23 7 13 54	22 20 16 36 14 47 22 11 12 20	23 20 17 40 — — —	25 4 19 10 ————————————————————————————————————	26 4 20 14 17 27 24 3 15 28	t. t. 6·8 3·0 10·5
972 Sept. 25 Wed. 973 Mar. 21 Fri. 973 Sept. 15 Mon. 974 Mar. 10 Tues. 976 Jan. 19 Wed.	Âśvina       895         Chaitra       896         Âśvina       896         Chaitra       897         Mâgha       898	16 55 15 37 5 55 23 59 20 2	15 16 13 48 4 6 23 16 18 18	16 55 14 52 5 10 — 19 30	16 55 16 22 6 40 20 34	18 34 17 26 7 44 24 42 21 46	t. t. t. 1.7 t.

	Hindu Month	Time		from Lank en as 6 A.		unrise,	Number of
A.D.	· and	Greatest phase.	Begin-	Perio		End	twelfths
Year, Month,	Current Śaka Year.	[i.c. mo- ment of	ning of Eclipse.	Begin-	End.	of Eclipse.	cclipsed.  ["t."=total
and Day.	[" $w.m.i.$ " = with mean intercalations.]	fullmoon] h. m.	h. m.	ning.	h. m.	h. m.	eclipse.]
1	2	3	4	5	в	7	8
976 July 14 Fri. 977 Jan. 8 Mon. 977 July 3 Tues. 979 May 14 Wed. 979 Nov. 6 Thur.	Śrâvaņa       899         Mâgha, (w. m. i.)       Mâgha I       899         Âshâḍha       900         Jyeshtha       902         Kârttika       902	2 7 6 8 14 27 15 22 20 36	0 21 4 23 12 45 13 53 19 2	1 30 5 33 14 5 —	2 44 6 43 14 49 —	3 53 7 53 16 9 16 51 22 10	t. t. t. 8·8 10·3
980 May 2 Sun. 980 Oct. 26 Tucs. 981 Apr. 22 Fri. 981 Oct. 16 Sun. 983 Mar. 1 Thur.	Vaiśūkha.       903         Kūrttika.       903         Vaiśūkha.       904         Kūrttika.       904         Phâlguna.       905	23 37 10 1 1 23 1 57 22 40	21 47 8 11 0 36 0 51 20 58	22 48 9 12 — 22 17	24 26 10 50 — 23 3	25 27 11 51 2 10 3 3 24 22	t. t. 2·1 4·3 t.
983 Aug. 26 Suu. 984 Feb. 19 Tues. 984 Aug. 14 Thur. 985 Feb. 8 Sun. 985 Aug. 3 Mon.	Bhâdrapada.       906         Phâlguna.       906         Bhâdrapada.       907         Phâlguna.       907         Śrâvaņa.       908	7 54 13 58 8 6 5 49 11 30	6 16 12 10 6 19 5 14 11 15	13 15 7 26 —	14 41 8 46 —	9 32 15 46 9 53 6 24 11 45	11 · 8 t. t. 1 · 1 0 · 2
986 June 24 Thur. 986 Dec. 19 Sun. 987 June 14 Tues. 987 Dec. 8 Thur. 988 June 2 Sat.	Ashâdha       909         Pausha       909         Âshâdha       910         Mûrgaśirsha, (w. m. i)       Mûrgaśirsha II.       910         Jycshtha       911	14 31 3 14 7 40 2 39 23 24	13 29 1 38 5 49 0 49 21 56	6 50 1 53	8 30 3 25 —	15 33 4 50 9 31 4 29 24 52	3·7 11·1 t. t. 8·5
988 Nov. 26 Mon. 990 Apr. 12 Sat. 990 Oct. 6 Mon. 991 Apr. 1 Wcd. 991 Sept 26 Sat.	Mûrgaśîrsha       911         Vaiśûkha       913         Aśvina       913         Chaitra       914         Âśvina       914	7 40 20 46 25 16 22 54 13 48	6 43 19 16 23 39 21 4 11 58	22 6 13 2	23 42 14 34	8 37 22 16 26 53 24 44 15 38	3·1 9·1 11·5 t. t.
992 Mar. 21 Mon. 992 Sept. 14 Wed. 994 Jan. 30 Tues. 994 July 25 Wed. 995 Jan. 19 Sat.	Chaitra       915         Âśvina       915         Mâgha       916         Śrâvaṇa       917         Mâgha       917	$\begin{bmatrix} 7 & 49 \\ 19 & 27 \\ 4 & 37 \\ 9 & 15 \\ 14 & 24 \end{bmatrix}$	6 55 18 59 2 53 7 32 12 38	- 4 7 8 48 13 48	$ \begin{array}{c cccc}  & - & \\  & 5 & 7 \\  & 9 & 42 \\  & 15 & 0 \\ \end{array} $	8 43 19 55 6 21 10 58 16 10	2·8 0·7 t. t. t.
995 July 14 Sun. 997 May 24 Mon. 997 Nov. 17 Wed. 998 May 14 Sat. 998 Nov. 6 Sun.	Śrâvana.       918         Jyeshtha.       920         Mârgaśirsha.       920         Jyeshtha.       921         Kârttika.       921	21 52 22 34 5 9 6 26 18 46	20 7 21 13 3 35 4 34 16 56	21 18 — — 5 35 17 57	22 26 — 7 17 19 35	23 37 23 55 6 43 8 18 20 36	t. 7·0 10·2 t. t.
999 May 3 Wed. 999 Oct. 27 Fri. 1001 Mar. 12 Wed. 1001 Sept. 5 Fri. 1002 Mar. 1 Sun.	Vaiśâkha.       922         Kârttika.       922         Chaitra.       924         Bhâdrapada.       924         Phâlguna.       924	7 56 10 36 6 45 15 1 22 20	6 54 9 28 5 5 13 26 20 31	6 33 - 21 35	6 57 23 5	8 58 11 44 8 25 16 36 24 9	3·7 4·6 t. 10·6
1002 Aug. 25 Tues. 1003 Feb. 19 Fri. 1003 Aug. 14 Sat. 1004 July 4 Tues. 1004 Dec. 29 Fri.	Bhâdrapada.       925         Phâlguna       925         Bhâdrapada       926         Âshâdha.       927         Pausha       927	15 1 14 15 18 41 21 56 11 18	13 12 13 32 17 57 21 10 9 43	14 16 — — — —	15 46 — — — —	16 50 14 58 19 25 22 42 12 53	t. 1·7 1·8 2·0 . 10·8
1005 June 24 Sun. 1005 Dec. 18 Tues. 1006 June 14 Fri. 1006 Dec. 7 Sat. 1008 Apr. 23 Fri:	Ashâḍha       928         Pausha       928         Âshâḍha       929         Mârgaśîrsha, (w. m. i.) Mârgaśîrsha II       929         Vaiśâkha       931	15 10 10 52 6 37 16 11 3 28	13 20 9 2 5 4 15 13 2 5	14 22 10 6 — —	15 58 11 38 — — —	17 0 12 42 8 10 17 9 4 51	t. t. 10·1 3·2 - 7·5

<u> </u>	Hindu Month	Time	e r		from Laúl	a mean s	uurise,	Number of
A. D. Year, Month,	and	Greatest	t	Begin-	Periototal obs	od of	End	twelfths eclipsed.
and Day.	Current Śaka Year.	[i.e. mo- ment of		ning of Eclipse.	Begin- ning.	End.	of Eclipse.	["t."= total
and Day.	["w.m.i." = with mean intercalations.]	h. m.	-1-	h. m.	h. m.	h. m.	h. m.	eclipse.]
1	2	3	_ -	4	5	6	7	8
1008 Oct. 17 Sun. 1009 Apr. 12 Tues. 1009 Oct. 6 Thur. 1010 Apr. 1 Sat. 1010 Sept. 26 Tues.	Kârttika       931         Vaiśâkha       932         Âśvina       932         Chaitra       933         Âśvina       933	$\begin{array}{c cccc} 9 & 47 \\ 6 & 7 \\ 21 & 46 \\ 15 & 35 \\ 2 & 54 \end{array}$		8 11 4 16 19 56 14 31 2 12	5 17 20 58 —	6 57 22 34 —	11 23 7 58 23 36 16 39 3 36	11.0 t. t. 4.0 1.6
1012 Feb. 10 Sun. 1012 Aug. 4 Mon. 1013 Jan. 29 Thur. 1013 July 25 Sat. 1014 July 14 Wed.	Phâlguna       934         Śrâvaṇa       935         Mâgha       935         Śrâvaṇa       936         Śrâvaṇa       937	13 3 16 31 22 38 5 23 22 12		11 20 14 52 20 52 3 36 21 51	12 36 16 24 22 1 4 42 —	13 30 16 38 23 15 6 4	14 46 18 10 24 24 7 10 22 33	t. t. t. 0.4
1015 June 5 Sun. 1015 Nov. 28 Mon. 1016 May 24 Thur. 1016 Nov. 17 Sat. 1017 May 13 Mon.	Jyeshtha       938         Mârgaśirsha       938         Jyeshtha       939         Mârgaśirsha       939         Jyeshtha       940	5 39 13 46 13 8 3 31 14 29		4 27 12 13 11 16 1 40 13 16	12 16 2 41 —	 14 0 4 21 	6 51 15 19 15 0 5 22 15 42	5·2 10·0 t. t. 5·4
1017 Nov. 6 Wed. 1019 Mar. 23 Mon. 1019 Sept. 16 Wed. 1020 Mar. 12 Sat. 1020 Sept. 4 Sun.	Kârttika       940         Chaitra       942         Âśvina       942         Chaitra       943         Bhâdrapada       943	19 22 14 45 22 16 6 35 22 7		18 12 13 8 20 45 4 45 20 17	5 48 21 19	7 22 22 55	20 32 16 22 23 47 8 25 23 57	4·9 11·3 9·4 t. t.
1021 Mar. 1 Wed. 1021 Aug. 25 Fri. 1022 July 16 Mon. 1023 Jan. 9 Wed. 1023 July 5 Fri.	Phâlguna       943         Bhâdrapada       944         Śrâvana       945         Mâgha       945         Âshâdha       946	22 32 2 4 5 28 19 16 22 38		21 43 1 8 4 58 17 41 20 49	21 54		23 21 3 0 5 58 20 51 24 27	2·3 3·0 0·8 10·7 t.
1023 Dec. 29 Sun. 1024 June 24 Wed. 1024 Dec. 17 Thur. 1026 May 4 Wed. 1026 Oct. 28 Fri.	Pansha       946         Âshâdha       947         Pausha       947         Vaisâkha       949         Kârttika       949	19 5 13 49 24 49 10 5 18 18		17 15 12 11 23 50 8 50 16 44	18 18 — — —	19 52 — — —	20 55 15 27 25 48 11 20 19 52	t. 11·7 3·4 5·8 10·5
1027 Apr. 23 Sun. 1027 Oct. 18 Wed. 1028 Apr. 11 Thur. 1028 Oct. 6 Sun. 1030 Feb. 20 Fri.	Vaiśâkha.       950         Kârttika.       950         Vaiśâkha.       951         Âśvina.       951         Phâlguna.       952	13 11 5 56 23 10 10 30 21 21		11 19 4 6 21 58 9 42 19 39	12 20 5 7. — 20 59	14 2 6 45 — 21 43	15 3 7 46 24 22 11 18 23 3	t. t. 5.3 2·2 t.
1030 Aug. 15 Sat. 1031 Feb. 10 Wed. 1031 Aug. 5 Thur. 1032 July 25 Tues. 1033 June 15 Fri.	Bhâdrapada.       953         Phâlguna.       953         Śrâvaṇa.       954         Śrâvaṇa.       955         Âshâdha.       956	23 51 6 38 12 59 5 48 12 44		22 15 4 51 11 9 5 3 11 46	5 59 12 13	7 17 13 45 — —	25 27 8 25 14 49 6 33 13 42	10·9 t. t. 1·9 3·3
1033 Dec. 8 Sat. 1034 June 4 Tues. 1034 Nov. 28 Thur. 1035 May 24 Sat. 1035 Nov. 18 Tues.	Pausha, (w. m. i.)       Pausha I.       956         Jyeshtha.       957         Mûrgasîrsha       957         Jyeshtha.       958         Mûrgasîrsha       958	22 28 19 43 12 23 20 54 4 4		20 54 17 52 10 32 19 31 .2 53	18 53 11 33	20 33 13 13	24 2 21 34 14 14 22 17 5 15	10·2 t. t. 7·4 5·1
1037 Apr. 2 Sat. 1037 Sept. 27 Tues. 1038 Mar. 23 Thur. 1038 Sept. 16 Sat. 1039 Mar. 13 Tues.	Chaitra       960         Âśvina       960         Chaitra       961         Âśvina       961         Chaitra       962	22 29 5 34 14 41 5 20 6 36		20 55 4 6 12 51 3 29 5 41	13 52 4 30	15 30 6 10	$\begin{array}{cccc} 24 & 3 \\ 7 & 2 \\ 16 & 31 \\ 7 & 11 \\ 7 & 31 \\ \end{array}$	10·4 8·6 t. t. 2.9

	Hindu Month	Time measured from Lanka mean sunrise, taken as 6 A.M.					Number of
A. D. Year, Month,	and	Greatest phase.	Degin-	Period total obs	od of curation,	End of	twelfths eclipsed.
and Day.	Current Śaka Year.  [" $w.m.i$ ." = with mean intercalations.]	{i.e. mo- ment of fullmoor	Eclinse.	Bėgin- ning.	End.	Eclipse.	[" t." = total
1	2	h. m.	h. m.	h. m.	h. m.	h. m.	eclipse.]
1039 Sept. 5 Wed.	Bhâdrapada	9 30	-			10 34	4.0
1041 Jan. 20 Tues. 1041 July 16 Thur.	Mågha       963         Śrâvaṇa       964	$\begin{array}{ccc} 3 & 11 \\ 6 & 9 \end{array}$	1 37 4 23	5 31	6 47	·4 45 7 55	10·5 t.
1042 Jan. 9 Sat. 1042 July 5 Mon.	Mågha	$\begin{array}{ccc} 3 & 13 \\ 20 & 59 \end{array}$	$\begin{array}{c cccc} & 1 & 23 \\ 19 & 17 \end{array}$	2 27 20 35	$\begin{array}{ccc} 3 & 59 \\ 21 & 23 \end{array}$	5 3 22 41	t. .t.
1042 Dec. 29 Wed. 1044 May 14 Mon.	Pausha	9 26 16 38	8 26 15 33	_	_	10 26 17 43	$3 \cdot 5$ $4 \cdot 2$
1044 Nov. 8 Thur. 1045 May 3 Fri.	Kârttika, (w.m. i.)       Karttika II	$\begin{array}{ccc} 2 & 54 \\ 20 & 7 \end{array}$	1 20	19 15	20 59	4 28 21 59	10·2 · t.
1045 Oct. 28 Mon.	Kârttika	$\begin{bmatrix} 14 & 5 \\ 6 & 44 \end{bmatrix}$	12 15 5 25	13 16	14 54	15 55 8 3	t. 6·6
1046 Apr. 23 Wed. 1046 Oct. 17 Fri. 1048 Mar. 3 Thur.	Valsakna	18 13 5 32	17 20	5 18	5 46	19 6 7 12	$\begin{array}{c} 0.0 \\ 2 \cdot 7 \\ t. \end{array}$
1048 Aug. 26 Fri. 1049 Feb. 20 Mon.	Bhâdrapada	7 23 14 35	5 51	13 53	15 17	8 55 16 22	9 · 6 t.
1049 Aug. 15 Tues.	Bhâdrapada	20 43	E	19 54	21 32	22 33 14 26	t. 3•2
1050 Aug. 5 Sun. 1051 June 26 Wed. 1051 Dec. 20 Fri.	Śrâvaṇa.       973         Âshâḍha.       974         Pausha.       974	13 28 19 45 7 11				.20 28 8 44	1.7 $10.0$
1052 June 15 Mon.	Âshâdha975	2 16		1 29	3 3	4 6	t.
1052 Dcc. 8 Tues. 1053 June 4 Fri.	Mârgaśirsha, (w. m. i.)       Pausha I	$\begin{bmatrix} 21 & 16 \\ 3 & 21 \\ 12 & 21 \end{bmatrix}$	1 50	20 26	22 6	$\begin{bmatrix} 23 & 7 \\ 4 & 52 \\ 14 & 2 \end{bmatrix}$	t. 9·4 5·0
1053 Nov. 28 Sun. 1055 Apr. 14 Tues. 1055 Oct. 8 Sun.	Mårgaširsha       976         Vaišâkha       978         Âśvina       978	12 51 6 15 13 6	4 44			$\begin{array}{c cccc} 14 & 2 \\ 7 & 46 \\ 14 & 30 \end{array}$	9·3 7·7
1056 Apr. 2 Tues.	Chaitra 979	22 41	20 50	21 51	23 31	24 32	t.
1056 Sept. 26 Thur. 1057 Mar. 23 Sun.	Âśvina       979         Chaitra       980         Âźrina       980	12 44 14 31	13 29	11 54	13 34	14 35 15 33 18 23	t. 3·8 5·0
1057 Sept. 15 Mon. 1059 Jan. 31 Sun.	Âśvina       980         Mâgha       981	17 12 10 57			_	18 23 12 30	9.9
1059 July 27 Tues. 1060 Jan. 20 Thur.	Śrâvaṇa	13 45 11 18	9 28	13 15 10 30	14 15 12 6	15 29 13 8	t. t.
1060 July 16 Sun. 1061 Jan. 8 Mon.	Śrâvaṇa.       983         Mâgha.       983	18 0	16 58	3 35	4 45	19 2	t. 3·7 2·3
1062 May 25 Sat. 1062 Nov. 19 Tues.	Jyeshthn	23 7 11 41			_	23 56	.10.1
1063 May 15 Thur. 1063 Nov. 8 Sat.	Jyeshtha	3 5 22 24	1 14	2 15 21 35	3 55 23 13	4 56 24 14	t. t.
1064 May 3 Mon. 1064 Oct. 28 Thur.	Vaisâkha.       987         Kârttika.       987	14 10 1 59				15 37 2 56	$\begin{array}{c} 8\cdot 3 \\ 3\cdot 1 \end{array}$
1066 Mar. 14 Tues. 1066 Sept. 6 Wed.	Chaitra       989         Bbådrapada       989	13 31 15 2		_		15 8 16 30	11·4 8·6
1067 Mar. 3 Sat. 1067 Aug. 27 Mon.	Phâlguna	22 19 4 34	20 30	21 35 3 44	23 3 5 24	24 ·8 6 25	t. t.
1068 Feb. 20 Wed.	Phâlguna	24 0			_	24 28	0·7 4·4
1068 Aug. 15 Fri. 1069 Dec. 30 Wed. 1070 June 26 Sat.	Bhâdrapada.       991         Pausha.       992         Âshâḍha.       993	21 18 15 52 8 48	14 19	8 7	9 29	22 25 17 25 10 35	10·1 t.
1070 Dec. 20 Mon. 1071 June 15 Wed.	Pausha       993         Âshâḍha       994	6 9 9 44	4 18	5 19	6 59	8 0 11 21	t. 11·2

А. D.	Hindu Month	Ti	me		from Land en as 6 A		anrise,	Number of
Year, Month,	and	Greate phase		Begin-		od of curation.	End	twelfths eclipsed.
and Day.	Current Śaka Year.	[i.e. m ment	of	ning of Eclipse.	Begin-	End.	of Eclipse.	["t."= total
and Day.	["w.m.i." = with mean intercalations.]	full mo		h. m.	h. m.	h. m.	h. m.	eclipse.]
1	2	3		4	5	6	7	8
1071 Dcc. 9 Fri. 1073 Apr. 24 Wed. 1073 Oct. 18 Fri. 1074 Apr. 14 Mon. 1074 Oct. 7 Tues.	Mârgaśîrsha, (w. m. i.) Pausha I.       994         Vaiśâkha.       996         Kârttika.       996         Vaiśâkha.       997         Âśvina       997	13 5 20 4 6 2	12 51 16 29 21	20 31 12 26 19 25 4 37 18 29	5 38 19 30	7 20 21 12	22 53 15 16 22 7 8 21 22 13	5·1 7·9 7·0 t. t.
1075 Apr. 3 Fri. 1075 Sept. 26 Sat. 1077 Feb. 10 Fri. 1077 Aug. 6 Sun. 1078 Jan. 30 Tues.	Chaitra       998         Âśviua       998         Phâlguna       999         Śrâvaṇa       1000         Mâgha       1000	25 18 4 21 2	21 21 21 21 21	21 11 23 46 17 9 19 41 -17 31	21 9 18 32	21 33 20 10	23 31 26 18 20 13 23 1 21 11	4·8 6·0 9·6 t. t.
1078 July 27 Fri. 1079 Jan. 20 Sun. 1080 June 5 Fri. 1080 Nov. 29 Sun 1081 May 25 Tues.	Śrâvana.       1001         Mâgha.       1001         Jyeshtha.       1003         Mârgaśirsha       1003         Jyeshtha.       1004	2 2 5 3	25 29 36 22 3	9 37 1 25 5 15 18 50 8 13	10 43 — — 9 15	12 7 — — 10 51	13 13 3 33 5 57 21 54 11 53	t. 4·0 0·4 9·8 t.
1081 Nov. 19 Fri. 1082 May 14 Sat. 1082 Nov. 8 Tues. 1084 Mar. 24 Sun. 1084 Sept. 16 Mon.	Mårgasirsha       1004         Jyeshtha.       1005         Kårttika, (w. m. i.) Kårttika II       1005         Chaitra.       1007         Ásvina       1007	21 3 9 5 21 2	16 33 55 23 53	4 55 20 1 8 57 19 49 21 28	5 56 — — — —	7 36 — — —	8 37 23 5 10 53 22 57 24 18	t. 9·7 3·3 10·4 7·8
1085 Mar. 14 Fri. 1085 Sept. 6 Sat. 1086 Mar. 3 Tues. 1086 Aug. 27 Thur. 1088 Jan. 10 Mon.	Chaitra       1008         Bhâdrapada       1008         Phâlguna       1008         Bhâdrapada       1009         Mâgha       1010	$egin{array}{cccc} 12 & 3 \\ 7 & 2 \\ 5 & 1 \\ \end{array}$	52 31 23 2 34	4 2 10 39 6 43 3 59 23 1	5 5 11 40 — — —	6 39 13 22 — — —	7 42 14 23 8 3 6 25 26 7	t. t. 1.5 5.5 10.0
1088 July 6 Thur. 1088 Dec. 30 Sat. 1089 June 25 Mon. 1089 Dec. 20 Thur. 1091 May 5 Mon.	Âshâḍha       1011         Pausha       1011         Âshâḍha       1012         Pausha       1012         Vaiśâkha       1014	15 16 6 3	9 3 3 5 26	13 35 13 12 14 20 5 24 20 8	14 48 14 13 15 38 —	15 50 15 53 16 28 —	17 3 16 54 17 46 7 46 22 44	t. t. 5·0 6·4
1091 Oct. 30 Thur. 1092 Apr. 24 Sat. 1092 Oct. 18 Mon. 1093 Apr. 14 Thur. 1093 Oct. 7 Fri.	Kârttika       1014         Vaiśâkha       1015         Kârttika       1015         Vaiśâkha       1016         Âsviua       1016	14 1 4	30 5 7 2	3 12 12 23 2 15 4 47 7 42	13 23 3 15 —	15 7 4 59 —	5 48 16 7 5 59 7 17 10 20	6·5 t. t. 5·9 6·7
1095 Feb. 22 Thur. 1095 Aug. 18 Sat. 1096 Feb. 11 Mon. 1096 Aug. 6 Wed. 1097 Jan. 30 Fri.	Phâlguna       1017         Bhâdrapada       1018         Phâlguna       1018         Śrâvaṇa       1019         Mâgha       1019	5 3 1 18 4	1 2 5 12 54	0 41 3 26 1 25 16 52 9 48	2 26 17 56	- 4 4 19 28	3 41 6 38 5 5 20 32 12 0	8·9 11·0 t. t. 4·3
1098 Dec. 11 Sat. 1099 June 5 Sun. 1099 Nov. 30 Wed. 1100 May 25 Fri. 1100 Nov. 18 Sun.	Pausha       1021         Jyeshtha       1022         Mârgaśirsha       1023         Jyeshtha       1023         Mârgaśirsha       1023	16 5 15 4 5	8 4 7 8 6	3 35 15 6 13 17 3 21 16 56	16 12 14 18	17 36 15 56	6 41 18 42 16 57 6 35 18 56	9·9 t. t. 11·5 3·5
1102 Apr. 5 Sat. 1102 Sept. 28 Sun. 1103 Mar. 25 Wed. 1103 Sept. 17 Thur. 1104 Mar. 13 Sun.	Chaitra.       1025         Âśvina.       1025         Chaitra.       1026         Âśvina.       1026         Chaitra.       1027	$\begin{array}{ccc} 6 & 4 \\ 13 & 1 \end{array}$	2 9 3 0 8	3 31 5 29 11 23 18 48 13 49	12 24 19 48	14 2 21 32 —	6 33 8 9 15 3 22 32 15 27	9·2 6·9 t. t. 2·3

A. D.	Hiudu Month	Time	measured tak	from Lañl en as 6 A		unrise,	Number of
Year, Month,	and	Greatest phase.	Begin-		od of scuration.	End	twelfths eclipsed.
and Day.	Current Śaka Year.  ["w. m. i." = with mean intercalations.]	[i.c. mo· ment of full moon]	ning of Eclipse.	Begin- ning.	End.	of Eclipse.	["t."=total
1	2	h. m.	h. m.	h. m.	h. m.	h. m.	eclipse.]
1104 Sept. 6 Tues	Bhâdrapada	13 10	11 52			14 28	8 6·5
1106 Jan. 21 Sun. 1106 July 17 Tues. 1107 Jan. 10 Thur. 1107 July 6 Sat.	Mûgha.       1028         Śrâvaṇa       1029         Mûgha.       1029         Âshûdha       1030	9 10 21 57 23 58 22 32	7 37 20 17 22 7 20 46	21 43 23 8 21 56	22 11 24 48 23 8	10 43 23 37 25 49 24 18	10·0 t. t. t.
1107 Dec. 31 Tues. 1109 May 16 Sun. 1109 Nov. 9 Tues. 1110 May 5 Thur. 1110 Oct. 29 Sat.	Mågha.       1030         Jyeshtha.       1032         Kårttika.       1032         Vaisakha.       1033         Kårttika.       1033	15 24 4 55 12 25 21 56 11 58	14 14 3 43 11 9 20 4 10 6	21 5	22 47 12 49	16 34 6 7 13 41 23 48 13 50	4·9 5·2 6·0 t.
1111 Apr. 25 Tues. 1111 Oct. 18 Wed. 1113 Mar. 4 Tues. 1113 Aug. 28 Thur. 1114 Feb. 21 Sat.	Vaiśâkha       1034         Kârttika       1034         Phâlguna       1035         Bhâdrapada       1036         Phâlguna       1036	13 39 -17 10 9 36 12 25 11 0	12 16 15 48 8 10 11 22 9 9			15 2 18 32 11 2 14 28 12 51	7·4 7·3 8·1 9·9 t.
1114 Aug. 18 Tues. 1115 Feb. 10 Wed. 1115 Aug. 7 Sat. 1116 Dec. 21 Thur. 1117 June 15 Fri.	Bhâdrapada.       1037         Phâlguna       1037         Śrâvaṇa       1038         Pausha       1039         Âshâḍha       1040	2 8 19 13 8 33 13 55 23 52	0 18 18 4 7 57 12 23 22 6	1 19   23 17	2 57 — — — 24 27	3 58 20 22 9 9 15 27 25 38	$\begin{array}{c} t. \\ 4 \cdot 7 \\ 1 \cdot 2 \\ 9 \cdot 7 \\ t. \end{array}$
1117 Dec. 10 Mon. 1118 June 5 Wed. 1118 Nov. 30 Sat. 1120 Apr. 15 Thur. 1120 Oct. 8 Fri.	Pausha       1040         Jyeshtha       1041         Margasirsha       1041         Vaisakha       1043         Aśvina       1043	23 34 12 16 1 57 12 38 15 0	21 43 10 33 0 56 11 13 13 42	22 44 11 51 — — —	24 24 12 41 — — —	25 25 13 59 2 58 14 3 16 18	t. t. 3·6 7·9 6·4
1121 Apr. 4 Mon. 1121 Sept. 28 Wed. 1122 Mar. 24 Fri 1122 Sept. 17 Sun. 1124 Feb. 1 Fri.	Chaitra       1044         Âśvina       1044         Chaitra       1045         Âśvina       1045         Mâgha       1046	20 29 4 54 21 45 21 16 17 41	18 38 3 2 20 45 19 54 16 9	19 39 4 2 — —	21 19 5 46 — —	22 20 .6 46 .22 45 .22 38 .19 13	t. t. 3·5 7·3 9·7
1124 July 28 Mon. 1125 Jan. 21 Wed. 1125 July 17 Fri. 1126 Jan. 10 Sun. 1126 July 6 Tues.	Śrâvaṇa.       1047         Mâgha       1047         Śrâvaṇa.       1048         Mâgha.       1048         Âshâḍha       1049	4 35 8 42 5 8 24 9 8 50	3 0 6 51 3 19 22 58 8 19	7 52 4 25 —	9 32 5 51 —	6 10 10 33 6 57 25 20 9 21	10·6 t. t. 5·0 0·9
1127 May 27 Fri. 1127 Nov. 20 Sun. 1128 May 16 Wed. 1128 Nov. 8 Thur. 1129 May 5 Sun.	Jyeshtha       1050         Mårgasirsha       1050         Jyeshtha       1051         Kårttika       1051         Vaisakha       1052	12 23 20 19 5 30 19 58 21 3	11 23 19 4 3 39 18 6 19 34	4 40 19 7	6 20 20 49	13 23 21 34 7 21 21 50 22 32	3·5 5·9 t. t. 8·8
1120 Oct. 29 Tues. 1131 Mar. 15 Sun. 1131 Sept. 8 Tues. 1132 Mar. 3 Thur. 1132 Aug. 28 Sun.	Kûrttika.       1052         Chaitra.       1054         Bhûdrapada       1054         Phûlguna       1054         Bhûdrapada.       1055	1 28 16 50 20 53 18 45 9 35	0 4 15 30 19 24 16 53 7 44	  17 54 8 45	  19 36 10 25	2 52 18 10 22 22 20 37 11 26	7·6 6·9 8·7 t. t.
1133 Feb. 21 Tues. 1133 Aug. 17 Thur. 1135 Jan. 1 Tues. 1135 June 27 Thur. 1135 Dec. 22 Sun.	Phûlguna       1055         Bhâdrapada       1056         Pausha       1057         Âshâḍha       1058         Pausha       1058	3 29 15 31 22 45 6 47 8 1	2 16 14 37 21 14 5 5 6 10	- 6 24 7 11	7 10 8 51	4 42 16 25 24 16 .8 29 9 52	5·5 2·8 9·5 t. t.

	Hindu Month	Time		from Lanl en as 6 A		unrise,	Number of
A. D. Year, Month,	and	Greatest phase.	Degin-		od of curation.	End	twelfths eclipsed.
and Day.	Current Śaka Year.	[i.e. mo- ment of full moon]	ning of Eclipse.	Begin- ning.	End.	of Eclipse.	["t." = total]
ana Day.	["w.m.i." = with mean intercalations.]	h. m.	h. m.	h. m.	h. m.	h. m.	eclipse.]
1	2	3	4	5	6	7	8
1136 June 15 Mon. 1136 Dec. 10 Thur. 1138 Apr. 26 Tues. 1138 Oct. 19 Wed. 1139 Apr. 16 Sun.	Âshâdba       1059         Pausha       1059         Vaiśâkha       1061         Kârttika       1061         Vaiśâkha       1062	19 39 10 2 20 2 23 20 3 34	17 53 8 59 18 44 22 5 1 42	19 3 — — — — 2 42	20 15 — — 4 26	21 25 11 5 21 20 24 35 5 26	t. 3·9 6·5 5·9 t.
1139 Oct. 9 Mon. 1140 Apr. 4 Thur. 1140 Sept. 28 Sat. 1142 Feb. 12 Thur. 1142 Aug. 8 Sat.	Kârttika       1062         Chaitra.'       1063         Áśvina       1063         Phâlguna       1064         Śrâvaṇa       1065	13 21 4 41 5 28 2 7 11 20	11 29 3 30 4 3 0 36 9 50	12 29 — — — —	14 13 - - -	15 13 5 52 6 53 3 38 12 50	t. 5·0 7·9 9·3 9·0
1143 Feb. 1 Mon. 1143 July 28 Wcd. 1144 Jan. 22 Sat. 1144 July 16 Sun. 1145 June 6 Wed.	Mâgha.       1065         Śrâvaṇa.       1066         Mâgha.       1066         Śrâvaṇa.       1067         Jyeshtha.       1068	17 23 11 41 8 51 15 47 19 48	15 31 9 51 7 39 14 56 19 2	16 32 10 52 . — . —	18 14 12 30 — — —	19 15 13 31 10 3 16 38 20 34	t. t. 5·2 2·5 2·0
1145 Dec. 1 Sat. 1146 May 27 Mon. 1146 Nov. 20 Wed. 1147 May 17 Sat. 1147 Nov. 9 Sun.	Mårgaśîrsha       1068         Jyeshtha       1069         Mårgaśîrsha       1069         Jyeshtha       1070         Kârttika       1070	$\begin{array}{cccc} 4 & 20 \\ 13 & 0 \\ 4 & 2 \\ 4 & 21 \\ 9 & 56 \end{array}$	3 6 11 10 2 10 2 47 8 31	12 13 3 11 —	13 47 4 53 —	5 34 14 50 5 54 5 55 11 21	5·6 t. t. 10·4 7·9
1149 Mar. 25 Fri. 1149 Sept. 19 Mon. 1150 Mar. 15 Wed. 1150 Sept. 8 Fri. 1151 Mar. 4 Sun.	Chaitra       1072         Âśvina       1072         Chaitra       1073         Bhâdrapada       1073         Phâlguna       1073	23 54 4 58 2 19 17 12 11 33	22 39 3 34 0 27 15 20 10 16	1 27 16 21	3 11 18 3	25 9 6 22 4 11 19 4 12 50	$5 \cdot 9 \\ 7 \cdot 6 \\ t. \\ t. \\ 6 \cdot 2$
1151 Aug. 28 Tues. 1153 Jan. 12 Mon. 1153 July 7 Tues. 1154 Jan. 1 Fri. 1154 June 27 Sun.	Bhâdrapada.       1074         Mâgha       1075         Âshâdha       1076         Pausha       1076         Âshâdha       1077	22 28 7 20 13 50 16 22 3 0	21 24 5 49 12 13 14 31 1 12	15 32 2 17	- - 17 12 3 43	23 32 8 51 15 27 18 13 4 48	4·0 9·3 11·5 t. t.
1154 Dec. 21 Tues. 1155 June 16 Thur. 1156 May 7 Mon. 1156 Oct. 30 Tues. 1157 Apr. 26 Fri.	Pausha       1077         Âshâdha       1078         Vaiśâkha       1079         Kârttika       1079         Vaiśâkha       1080	18 7 20 0 3 16 7 43 10 27	17 4 19 30 2 7 6 29 8 35	9 36	11 18	19 10 20 30 4 25 8 57 12 19	3·9 0·8 4·7 5·6 t.
1157 Oct. 19 Sat. 1158 Apr. 15 Tues. 1158 Oct. 9 Thur. 1160 Feb. 23 Tues. 1160 Aug. 18 Thur.	Kârttika       1080         Vaiśâkha       1081         Âśvina       1081         Phâlguna       1082         Bhâdrapada       1083	21 48 11 32 13 51 10 23 18 11	19 56 10 14 12 22 8 53 16 49	20 56	22 40	23 40 12 50 15 20 11 53 19 33	t. 6·5 8·7 8·9 7·2
1161 Feb. 12 Sun. 1161 Aug. 7 Mon. 1162 Feb. 1 Thur. 1162 July 27 Fri. 1163 June 18 Tucs.	Phâlguna.       1083         Śrâvaṇa       1084         Mâgha,       1084         Śrâvaṇa.       1085         Âshâḍha.       1086	1 56 18 26 17 23 22 51 3 11	0 4 16 35 16 11 21 45 2 45	1 5 17 36	2 47 19 16 — — —	3 48 20 17 18 35 23 57 3 87	t. t. 5·3 4·3 0·6
1163 Dec. 12 Thur. 1164 June 6 Sat. 1164 Nov. 30 Mon. 1165 May 27 Thur. 1165 Nov. 19 Fri.	Pausha       1086         Jyeshtha.       1087         Mûvgaśirsha       1087         Jyeshtha.       1088         Mârgaśirsha       1088	12 26 20 25 12 15 11 36 18 24	11 13 18 37 10 23 9 57 16 57	19 42 11 24 11 36	21 8 13 6 11 36	13 39 22 13 14 7 13 15 19 51	5·4 t. t. t. 8·2

4 D	Hindu Month	Time	measured tak	from Lan en as 6 A		unrise,	Number of
A. D. Year, Month,	and	Greatest phase.	Degin-		od of scuration.	End	twelfths eclipsed.
and Day.	Current Śaka Year. $["w, m, i." = with mean intercalations.]$	[i.e. mo- ment of full moon		Begin- ning.	End.	of Eclipse.	["t." = total
1	2	h. m.	h. m.	h. m.	h. m.	h. m.	eclipse.]
1167 Apr. 6 Thur.	Chaitra	6 57	5 50	<u> </u>		8 4	8 4·5
1167 Sept. 30 Sat. 1168 Mar. 25 Mon. 1168 Sept. 18 Wed. 1169 Mar. 14 Fri.	Âśvina.       1090         Chaitra.       1091         Âśvina.       1091         Chaitra.       1092	13 8 9 45 24 55 19 33	11 48 7 53 23 3 18 12	8 53 24 3	10 37 25 47	14 28 11 37 26 47 20 54	6·9 t. t. 7·1
1169 Sept. 8 Mon. 1171 Jan. 23 Sat. 1171 July 18 Sun. 1172 Jan. 12 Wed. 1172 July 7 Fri.	Bhâdrapada       1092         Mâgha       1093         Śrâvaṇa       1094         Mâgha       1094         Âshâdha       1095	5 37 15 56 20 54 24 38 10 25	4 25 14 25 19 21 22 47 8 35	23 48 9 38	25 28 11 12	6 49 17 27 22 27 26 29 12 15	5·3 9·2 9·9 t. t.
1173 Jan. 1 Mon. 1173 June 27 Wed. 1174 May 18 Sat. 1174 Nov. 10 Sun. 1175 May 7 Wed.	Pausha       1095         Âshâḍha       1096         Jyeshṭha       1097         Mârgaśîrsha       1097         Vaiśākha       1098	2 8 3 26 10 28 16 13 17 15	1 3 2 37 9 30 15 0 15 25	- - - 16 26	- - - 18 4	3 13 4 15 11 26 17 26 19 5	4·2 2·3 3·2 5·4 t.
1175 Oct. 31 Fri. 1176 Apr. 25 Sun. 1176 Oct. 19 Tues. 1178 Mar. 5 Sun. 1178 Aug. 29 Tues.	Kârttika       1098         Vaiśâkha.       1099         Kârttika       1099         Phâlguna.       1100         Bhâdrapada       1101	6 31 18 12 22 23 18 37 25 6	4 39 16 46 20 53 17 10 23 51	5 40 — — — —	7 22 — — — —	8 23 19 38 23 53 20 4 26 21	t. 8·1 9·0 8·2 5·9
1179 Feb. 23 Fri. 1179 Aug. 18 Sat. 1180 Feb. 13 Wed. 1180 Aug. 7 Thur. 1181 Dec. 22 Tues.	Phâlguna       1101         Bhâdrapada       1102         Phâlguna       1102         Śrâvaṇa       1103         Pausha       1104	10 27 25 20 1 54 6 2 20 26	8 35 23 28 0 40 4 47 19 14	9 36 24 28 — — —	11 18 26 12 — —	12 19 27 12 3 8 7 17 21 38	t. t. 5·7 5·8 5·2
1182 June 18 Fri. 1182 Dec. 11 Sat. 1183 June 7 Tues. 1183 Dec. 1 Thur. 1185 Apr. 16 Tues.	Âshâdha       1105         Pausha       1105         Jyeshtha       1106         Mârgaśîrsha       1106         Vaiśâkha       1108	3 55 20 30 18 45 2 59 13 44	2 9 18 38 17 2 1 32 12 48	3 19 19 39 18 17 —	4 31 21 21 19 13 —	5 41 22 22 20 28 4 26 14 40	t. t. t. 8·3 3·0
1185 Oct. 10 Thur. 1186 Apr. 5 Sat. 1186 Sept. 30 Tues. 1187 Mar. 26 Thur. 1187 Sept. 19 Sat.	Âśvina.       1108         Chaitra.       1109         Âśvina.       1109         Chaitra.       1110         Âśvina.       1110	21 27 17 6 8 40. 3 27 12 57	20 9 15 15 6 48 2 0 11 40	16 16 7 49 —	17 56 · 9 31 —	22 45 18 57 10 32 4 54 14 14	6·4 t. t. 8·2 6·3
1189 Feb. 2 Thur. 1189 July 29 Sat. 1190 Jan. 23 Tues. 1190 July 18 Wed. 1191 Jan. 12 Sat.	Mâgha.       1111         Śrâvaṇa       1112         Mâgha       ' 1112         Śrâvaṇa       1113         Mâgha.       1113	24 25 4 9 8 50 17 55 10 8	22 56 2 42 6 59 16 4 9 2	$\begin{bmatrix} - \\ 8 & 0 \\ 17 & 5 \\ - \end{bmatrix}$	9 40 18 45	25 54 5 36 10 41 19 46 11 14	8·7 8·2 t. t. 4·3
1191 July 8 Mon. 1192 May 28 Thur. 1192 Nov. 20 Fri. 1193 May 17 Mon. 1193 Nov. 10 Wed.	Ashâḍha       1114         Jyeshṭha       1115         Mârgaśirsha       1115         Jyeshṭha       1116         Kârttika       1116	11 2 17 31 24 55 23 56 15 17	$\begin{array}{cccc} 10 & 0 \\ 16 & 52 \\ 23 & 42 \\ 22 & 7 \\ 13 & 25 \end{array}$	23 11 14 26		12 4 18 10 26 8 25 45 17 9	3·8 1·4 5·4 t. t.
1194 May 6 Fri. 1194 Oct. 31 Mon. 1196 Mar. 16 Sat. 1196 Sept. 9 Mon. 1197 Mar. 5 Wed.	Vaiśâkha.       1117         Kârttika.       1117         Chaitra.       1119         Bhâdrapada.       1119         Phâlguna.       1119	24 50 6 58 2 45 8 12 18 48	23 17 5 27 1 22 7 5 16 56	- - - 17 56	19 40	26 23 8 29 4 8 9 19 20 40	9·9 9·3 7·4 4·4 t.

	Hindu Month	Time	Time measured from Lanka mean sunrise, taken as 6 A.M.				
A. D.	. and	Greatest phase.		Peri	od of	End	twelfths
Year, Month,	Current Śaka Year.	[i.e. mo-	ning of	Begin-	curation.	of	cclipsed.
and Day.	["w.m.i." = with mean intercalations.]	fullmoon	Eclipse.	h. m.	End.	h. m.	["t." = total eclipse.]
1	2	3	4	5	6	7	8
1197 Aug. 29 Fri. 1198 Feb. 23 Mon. 1198 Aug. 18 Tues. 1200 Jan. 3 Mon. 1200 June 28 Wed.	Bhâdrapada       1120         Phâlguna       1120         Phâdrapada       1121         Pausha       1122         Âshâḍha       1123	8 17 10 13 13 19 4 28 11 20	6 25 8 56 11 57 3 17 9 37	7 26 — — 10 54	9 8 11 46	10 9 11 30 14 41 5 39 13 3	$\begin{array}{c} {\rm t.} \\ {\rm 6\cdot 3} \\ {\rm 7\cdot 2} \\ {\rm 5\cdot 1} \\ {\rm t.} \end{array}$
1200 Dec. 22 Fri. 1201 June 18 Mon. 1201 Dec. 11 Tues. 1203 Apr. 27 Sun. 1203 Oct. 22 Wed.	Pausha       1123         Åshûdha       1124         Pausha       1124         Vaisâkha       1126         Kûrttika       1126	4 44 1 54 11 34 20 27 5 52	2 52 0 8 10 6 19 44 4 38	3 53 1 18 — — —	5 35 2 30 — — —	6 36 3 40 13 2 21 10 7 6	t. t. 8·5 1·7 5·7
1204 Apr. 15 Thur. 1204 Oct. 10 Sun. 1205 Apr. 5 Tues. 1205 Sept. 29 Thur. 1207 Feb. 14 Wed.	Vaiśākha,       1127         Âśvina.       1127         Chaitra.       1128         Âśvina.       1128         Phâlguna.       1129	24 18 16 41 11 13 20 18 8 47	22 28 14 49 9 42 18 57 7 20	23 29 15 50 — — —	25 7 17 32 — —	26 8 18 33 12 44 21 39 10 14	t. t. 9·4 7·0 8·2
1207 Aug. 9 Thur. 1208 Feb. 3 Sun. 1208 July 28 Mon. 1209 Jun. 22 Thur. 1209 July 18 Sat.	Śrâvaṇa       1130         Mâgha       1130         Śrâvaṇa       1131         Mâgha       1131         Śrâvaṇa       1132	11 29 16 55 25 29 18 1 18 34	10 9 15 4 23 37 16 54 17 21	16 5 24 38 —	17 45 26 20 —	12 49 18 46 27 21 19 8 19 47	6·9 t. t. 4·5 5·4
1210 Dcc. 2 Thur. 1211 May 29 Sun. 1211 Nov. 21 Mon. 1212 May 17 Thur. 1212 Nov. 10 Sat.	Mårgasirsha       1133         Jyeshtha       1134         Mårgasirsha       1134         Jyeshtha       1135         Kårttika       1135	9 33 6 32 24 5 7 21 15 37	8 21 4 45 22 13 5 43 14 6	5 52 23 14 —	7 12 24 56 —	10 45 8 19 25 57 8 59 17 8	5·3 t. t. 11·8 9·5
1214 Mar. 27 Thur. 1214 Sept. 20 Sat. 1215 Mar. 17 Tues. 1215 Sept. 9 Wed. 1216 Mar. 5 Sat.	Chaitra       1137         Âśvina       1137         Chaitra       1138         Bhâdrapada       1138         Phâlguna       1138	10 40 15 23 2 57 15 27 18 24	9 21 14 25 1 5 13 36 17 4	$\begin{bmatrix} - \\ 2 \\ 5 \\ 14 \\ 37 \\ - \end{bmatrix}$	$\begin{bmatrix} - \\ 3 & 49 \\ 16 & 17 \\ - \end{bmatrix}$	11 59 16 21 4 49 17 18 19 44	6·6 3·3 t. t. 6·9
1216 Aug. 28 Sun. 1218 Jan. 13 Sat. 1218 July 9 Mon. 1219 Jan. 2 Wed. 1219 June 29 Sat.	Bhâdrapada       1139         Mâgha       1140         Âshâdha       1141         Pausha       1141         Âshâdha       1142	20 44 12 27 18 46 13 0 9 2	19 16 11 17 17 8 11 9 7 13	- - 12 10 8 18	13 50 9 46	22 12 13 37 20 24 14 51 10 51	8·5 4·8 11·7 t. t.
1219 Dec. 22 Snn. 1221 Nov. 1 Mon. 1222 Apr. 27 Wed. 1222 Oct. 21 Fri. 1223 Apr. 16 Snn.	Pausha       1142         Kârttika       1144         Vaiśâkha       1145         Kârttika       1145         Vaiśâkha       1146	20 16 14 24 7 28 24 44 18 52	18 47 13 11 5 38 22 53 17 17	6 42 23 54	8 14 25 34	21 45 15 37 9 18 26 35 20 27	8·7 5·5 t. t. 10·7
1223 Oct. 11 Wed. 1225 Feb. 24 Mon. 1225 Aug. 19 Tucs. 1226 Feb. 13 Fri. 1226 Aug. 9 Sun.	Aśvina 1146 Phâlguna. 1147 Bhâdrapada 1148 Phâlguna. 1148 Śrâvaṇa 1149	3 53 16 59 18 59 24 53 9 9	2 29 15 35 17 45 23 1 7 17	24 2 8 17	25 44 10 1	5 17 18 23 20 13 26 45 11 1	7·7 7·7 5·6 t. t.
1227 Feb. 3 Wcd. 1227 July 30 Fri. 1228 Dcc. 12 Tues. 1229 June 8 Fri. 1229 Dec. 2 Sun.	Mûgha.       1149         Śrâvaṇa       1150         Pausha       1151         Jyeshtha Il       1152         Mûrgaśirsha       1152	1 52 2 4 18 17 13 4 8 56	$\begin{array}{ccc} 0 & 40 \\ 0 & 45 \\ 17 & 4 \\ 11 & 20 \\ 7 & 4 \end{array}$	12 35 8 5	13 33 9 47	3 4 3 23 19 30 14 48 10 48	5·2 6·7 5·4 t. t.

А. D.	Hindu Month	Time	measured tak	from Land en as 6 A		nnrise,	Number of
Year, Month,	nnd	Greatest phase.	Begin-	Peri-	od of curation.	End	twelfths
and Day.	Current Śaka Year.	[i.c. mo- ment of	ning of Eclipse.	Begin-	End.	of Eclipse.	eclipsed. ["t."=total
	["w,m,i."] = with mean intercalations.]	h. m.	h. m.	ning.	h. m.	h. m.	cclipse.]
1	2	3	4	5	в	7	8
1230 May 28 Tues. 1230 Nov. 21 Thur. 1232 Apr. 6 Tues. 1232 Sept. 30 Thur. 1233 Mar. 27 Sun.	Jyeshtha.       1153         Mårgaširsha       1153         Chaitra.       1155         Äśvina.       1155         Chaitra.       1156	13 46 24 19 18 31 22 43 11 3	12 3 22 48 17 18 21 51 9 11	13 19	14 13 — — 11 54	15 29 25 50 19 41 23 35 12 55	t. 9·5 5·5 2·6 t.
1233 Sept. 19 Mon. 1234 Mar. 17 Fri. 1234 Sept. 9 Sat. 1236 Jan. 24 Thur. 1236 July 20 Sun.	Âśvina.       1156         Chnitra.       1157         Bhâdrapada.       1157         Mâgha.       1158         Śrâvaṇa.       1159	22 43 2 22 4 23 20 17 2 19	20 53 0 58 2 51 19 10 0 46	21 55 — — —	23 81	24 33 3 46 5 55 21 24 3 52	t. 7·7 9·7 4·4 10·0
1237 Jan. 12 Mon. 1237 July 9 Thur. 1238 Jan. 2 Sat. 1238 June 28 Mon. 1239 Nov. 12 Sat.	Mûgha       1159         Âshûdha       1160         Pausha       1160         Âshûdha       1161         Mûrgasirsha       1162	21 14 16 9 4 55 23 12 22 58	10 23 14 10 3 26 22 51 21 46	20 24 15 21 —	22 4 16 57 — —	23 5 17 59 6 24 23 33 24 10	t. t. 8·7 0·4 5·2
1240 May 7 Mon. 1240 Nov. 1 Thur. 1241 Apr. 27 Sat. 1241 Oct. 21 Mon. 1243 Mar. 7 Sat.	Vaiśákha II       1163         Kárttika       1163         Vaiśákha       1163         Kárttika       1164         Phálguna       1165	14 33 8 52 2 27 11 35 25 3	12 46 7 1 0 47 10 8 23 43	13 52 S 2 2 17 —	15 14 9 42 2 37 —	16 20 10 43 4 7 13 2 26 23	t. t. t, S·3 G·9
1243 Aug. 31 Mon. 1244 Feb. 25 Thur. 1244 Aug. 19 Fri. 1245 Feb. 13 Mon. 1245 Aug. 9 Wed.	Bhûdrapada       1166         Phûlguna       1166         Bhûdrapada       1167         Phûlguna       1167         Srûvana       1168	2 32 8 39 16 53 9 30 9 46	1 24 6 47 15 1 8 16 8 20	7 47 16 2 —	9 31 17 44 —	3 40 10 31 18 45 10 44 11 12	4.6 t. t. 5.7 8.1
1246 Dec. 24 Mon. 1247 June 19 Wed. 1247 Dec. 13 Fri. 1248 June 7 Sun. 1248 Dec. 2 Wed.	Pausha       1169         Âshādha       1170         Pausha       1170         Jyeshtha II.       1171         Mārgašīrsha       1171	3 4 19 31 17 49 20 13 9 9	1 51 17 53 15 57 18 26 7 38	16 58 19 34	18 40 20 52	4 17 21 9 19 41 22 0 10 40	5'5 11'8 t. t. 9'5
1250 Apr. 18 Mon. 1250 Oct. 12 Wed. 1251 Apr. 7 Fri. 1251 Oct. 1 Sun. 1252 Mor. 27 Wed.	Vaiśákha.       1173         Áśvina II.       1173         Chaitra.       1174         Áśvina.       1174         Chaitra.       1175	2 16 6 17 18 59 6 18 10 17	1 10 5 33 17 8 4 28 8 48	18 9 5 32	19 49 7 4	3 22 7 1 20 50 8 8 11 46	4·3 1·8 t. t. 8·8
1252 Sept. 19 Thur. 1254 Feb. 4 Wed. 1254 July 31 Fri. 1255 Jan. 24 Sun. 1255 July 20 Tues.	Âśvina.       1175         Māgha.       1176         Śrâvaṇa.       1177         Māgha.       1177         Śrâvaṇa.       1178	12 8 4 6 9 50 5 22 23 13	10 33 3 1 8 22 3 31 21 22	- - 4 32 22 23	6 12 24 3	13 43 5 11 11 18 7 13 25 4	10·7 4·2 8·6 t.
1256 Jan. 13 Thur. 1256 July 9 Sun. 1257 Nov. 23 Fri. 1258 May 18 Sat. 1258 Nov. 12 Tues.	Magha       1178         Ashadha       1179         Margasirsha       1180         Jyeshtha       1181         Karttika II.       1181	13 33 5 50 7 36 21 34 17 2	12 3 5 2 6 26 19 49 15 11	21 0 16 12	22 8 17 52	15 3 6 38 8 46 23 19 18 53	8·9 2·2 4·9 t.
1259 May 8 Thur. 1259 Nov. 1 Sat. 1261 Mar. 18 Fri. 1261 Sept. 10 Sat. 1262 Mar. 7 Tues.	Vaiśakha.       1182         Karttika.       1182         Chaitra.       1184         Bhadrapada II.       1184         Phâlguna.       1184	9 59 19 21 8 57 10 20 16 15	8 16 17 53 7 41 9 19 14 23	9 31 — — 15 23	10 27 — — — 17 7	11 42 20 49 10 13 11 21 18 7	t 8·6 6·0 3·6 t.

A. D.	Hindu Month		Time	meas		from Land en as 6 A	ka mean s .M.	unrise,	,	Number of
	and		atest	Beg			od of scuration.	Er	ıd	twelfths
Year, Month,	Current Śaka Year.	[i.e	. mo- nt of	ning	g of ipse.	Begin-	End.	Dial:	_	eclipsed.
and Day.	[" $w.m.i$ ." = with mean intercalations.]	full	moon]	<u> </u>		ning.		Ecli		["t." = total eclipse.]
1	2	-1	m. 3	11.	m. L	h. m.	h. m.	h. 7		8
1262 Aug. 30 Wed.	Bhâdrapada	24	45	22	54	23 55	25 35	26	36	t.
1263 Feb. 24 Sat. 1263 Aug. 20 Mon.	Phâlguna       1185         Bhâdrapada       1186	17 17	$\frac{0}{34}$	15 16	42 3			18 19	18 5	6·5 9·3
1265 Jan. 3 Sat.	Pausha	11	46	10	34		_	12	58	5.3
1265 June 30 Tues.	Ashâḍha1188		59	n	26	_		3	32	9.9
1265 Dec. 24 Thur.     1266 June 19 Sat.	Pausha	2 2	$\frac{44}{37}$	0	53 48	$\begin{array}{c cccc} & 1 & 54 \\ & 1 & 52 \end{array}$	3 34 3 22	4	35 26	t.
1266 Dec. 13 Mon. 1267 June 8 Wed.	Pausha	17	55 36	16 5	23 58		<u>-</u>	19 7	27 14	9·6 1·3
1268 Apr. 28 Sat.	Vaisakha. 1191	9	53	8	57		_	10	49	$3 \cdot 0$
1268 Oct. 22 Mon.	Kârţtika1191	13	54	13	16			14	32	1.3
1269 Apr. 18 Thar.	Vaiśúkha       1192         Âśvina II       1192	$\begin{vmatrix} 2\\14 \end{vmatrix}$	48 0	$\frac{0}{12}$	58 11	$\begin{array}{ccc} 1 & 59 \\ 13 & 16 \end{array}$	$\begin{bmatrix} 3 & 37 \\ 14 & 44 \end{bmatrix}$	$\frac{4}{15}$	38 49	t. t.
1270 Apr. 7 Mon.	Chaîtra       1193         Âśvioa       1193	18 20	0 4	16 18	27 27		<u> </u>	19 21	33 41	$9 \cdot 9$ $11 \cdot 3$
1270 Sept. 30 Tues.										
1272 Feb. 15 Mon. 1272 Aug. 10 Wed.	Phâlguna	11 17	$\frac{44}{26}$	10 16	42 5	_	=	12 18	46 47	$3 \cdot 7$ $7 \cdot 1$
1273 Feb. 3 Fri. 1273 July 31 Mon.	Magha	13	$\begin{array}{c} 27 \\ 23 \end{array}$	11 4	36 31	$\begin{array}{c cc} 12 & 37 \\ 5 & 31 \end{array}$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	15 8	18 15	t. t.
1274 Jan. 23 Tues.	Mâgha	22	3	20	32	-		23	34	9.2
1274 July 20 Fri.	Śrâvana. 1197	12	25	11	23	_	_	13	27	3.8
1275 Dec. 4 Wed.   1276 May 29 Fri.	Mårgaśirsha	16 4	21 31	15 2	12 49	4 10	4 52	17 6	30 13	4·7 t.
1276 Nov. 22 Sun. 1277 May 18 Tues.	Mûrgasîrsha	25 17	$\frac{24}{22}$	23 15	34 36	$   \begin{array}{ccccccccccccccccccccccccccccccccccc$	26 13 17 59	27 19	14	t. t.
1277 Nov. 12 Fri.	Kârttika II	3	14	1	44		1. 0.	4	44	9.0
1279 Mar. 29 Wed.	Chaitra 1202	16	38	15	28		_	17	48	4.9
1279 Sept. 21 Thur. 1280 Mar. 17 Sun.	Äśvina	18 23	16 45	$\begin{array}{c} 17 \\ 21 \end{array}$	22 53	22 54	24 36	19   25.	10 37	$2\cdot S$ $t$ .
1280 Sept. 10 Tues.	Bhâdrapada	8	50	7	0	8 1	9 39	10	40	t.
1281 Mar. 6 Thur.	Phálgana	24 25	22 25	23 23	0 51		_	25 26	44 59	$\begin{array}{c} 7.3 \\ 10.5 \end{array}$
1281 Aug. 30 Sat. 1283 Jan. 14 Thur.	Bhâdrapada	20	31	19	19	_		21	43	5.2
1283 July 11 Sun. 1284 Jan. 4 Tues.	Âshâḍha II       1206         Pausha       1206	8 11	31 36	7 9	5 45	10 46	12 26		57 27	8·1 t.
1284 June 29 Thur.	Âshâḍha1207	9	5	7	15	8 16	9 54	10	55	t.
1284 Dec. 24 Sun.	Pausha	2	44 25	i 12	12 29	_		4	16 21	$9 \cdot 7$ $3 \cdot 0$
1285 June 18 Mon. 1286 May 9 Thur.	ÂshAḍha.       1208         Vaiśâkha II.       1209	13 17	27	16	45		_	18	9	1.6
1296 Nov. 2 Sat.	Kårttika1209	21	41	21	11		_	,	11	0.8
1287 Apr. 29 Tues. 1287 Oct. 22 Wed.	Vaiśákha	10 21	31 45	8 19	41 57	$\begin{array}{ccc} 9 & 45 \\ 21 & 3 \end{array}$	$\begin{array}{ccc} 11 & 17 \\ 22 & 27 \end{array}$		21 33	t. t.
1288 Apr. 18 Sun. 1288 Oct. 11 Mon.	Yaisûkha 1211	1	36	0	0	· —		3	12	11.0
1290 Feb. 25 Sat.	Âśvina       1211         Phâlguna       1212	19	17	2 18	28 22	3 58	4 18		$\begin{array}{c} 48 \\ 12 \end{array}$	t. 2•9
1290 Aug. 21 Mon.	Bhûdrapada	25	11	23	57	_			25	5.6
1291 Feb. 14 Wed. 1291 Aug. 11 Sat.	Phâlguna       1213         Śrâvaṇa       1214	21 13	24 40	19 11	34 48	20 35 12 48	$\begin{bmatrix} 22 & 13 \\ 14 & 32 \end{bmatrix}$		$\frac{14}{32}$	t. t.
1292 Feb. 4 Mon. 1292 July 30 Wed.	Mûgha	6	31 10	5 17	0 57	_	_	8	$\frac{2}{23}$	$9 \cdot 5$ $5 \cdot 5$
ary oo wed.	ыачаца,	1.0	10	11	0.1	.—		~0	~"	<b></b>

Л. D.	Hindu Month	Time	measured tak	from Lan en as 6 A	ka mean s . M.	unrise,	Number of
Year, Month,	and	Greatest phase.	Begin-	Peri	od of scuration.	End	twelfths
and Day.	Current Śaka Year.	[i.c. mo- ment of	ning of Eclipse.	Begin- ning.	End.	of Eclipse.	eclipsed. ["t."=total
	["w.m.i." = with mean intercalations.]	lı. m.	h. m.	h. m.	h. m.	h. m.	cclipse.]
1	2	3	4	5	В	7	8
1293 Dec. 14 Mon. 1294 June 9 Wed. 1294 Dec. 4 Sat. 1295 May 29 Sun. 1295 Nov. 23 Wed.	Pausha       1216         Jyeshtha II       1217         Margasirsha       1217         Jyeshtha       1218         Margasirsha       1218	25 5 11 32 9 43 24 49 11 15	23 57 9 56 7 53 23 0 9 44	8 54 24 6	10 32 25 32 —	26 13 13 8 11 33 26 38 12 46	4·6 11·1 t. t. 9·2
1296 May 18 Fri. 1297 Apr. 8 Mon. 1297 Oct. 2 Wed. 1298 Mar. 29 Sat. 1298 Sept. 21 Sun.	Jyeshtha       1219         Chaitra       1220         Âśvina       1220         Chaitra       1221         Âśvina       1221	17 47 24 15 2 20 7 0 17 0	17 11 23 13 1 34 5 9 15 10	- 6 10 16 12	7 50 17 48	18 23 25 17 3 6 8 51 18 50	1·2 3·7 2·0 t. t.
1299 Mar. 18 Wed. 1299 Sept. 11 Fri. 1301 Jan. 25 Wed. 1301 July 21 Fri. 1302 Jan. 14 Sun.	Chaitra       1222         Bhâdrapada       1222         Mâgha       1223         Śrâvaṇa       1224         Mâgha       1224	7 40 9 25 5 5 15 5 20 27	6 12 7 48 3 53 13 48 18 36	19 37		9 8 11 2 6 17 16 22 22 18	8·5 11·5 5·2 6·3 t.
1302 July 10 Tucs. 1303 Jan. 4 Fri. 1303 June 29 Sat. 1304 May 20 Wed. 1304 Nov. 13 Fri.	Âshûdha II.       1225         Pausha       1225         Âshâdha       1226         Jyeshtha       1227         Mûrgasîrsha       1227	15 37 11 29 20 19 0 59 5 35	13 45 9 57 19 9 0 44 5 14	14 46 — — —	16 28 — — —	17 29 13 1 21 29 1 14 5 56	t. 9·7 4·9 0·2 0·4
1305 May 9 Sun. 1305 Nov. 2 Tues. 1306 Apr. 29 Fri. 1306 Oct. 22 Sat. 1308 Mar. 8 Fri.	Vnišákha II.       1228         Kárttika.       1228         Vnišákha.       1220         Kárttika.       1229         Phálguna.       1230	18 9 5 47 9 1 12 25 2 38	16 22 4 0 7 21 10 45 1 50	17 27 5 6 8 45 12 9	18 51 6 28 9 17 12 41	19 56 7 34 10 41 14 5 3 26	t. t. t. 2∙2
1308 Sept. 1 Sun. 1309 Feb. 25 Tucs. 1309 Aug. 21 Thur. 1310 Feb. 14 Sat. 1310 Aug. 11 Tucs.	Bhâdrapada       1231         Phâlguna       1231         Bhâdrapada       1232         Phâlguna       1232         Śrâvaṇa       1233	8 56 5 14 20 56 14 53 1 57	7 49 3 24 19 5 13 20 0 35		6 3 21 46 —	10 3 7 4 22 47 16 26 3 19	4·5 t. t. 10·1 7·3
1311 Dec. 26 Sun. 1312 June 19 Mon. 1312 Dec. 14 Thur. 1313 June 9 Sat. 1313 Dec. 3 Mon.	Pausha,       1234         Âshâdha       1235         Pausha       1235         Jyeshtha II       1236         Mârgaśirsha       1236	9 47 18 36 18 1 8 13 19 15	8 40 17 5 16 11 6 23 17 44	- 17 12 7 25 -	18 50 9 1	10 54 20 7 19 51 10 3 20 46	4·4 9·4 t. t. 9·4
1314 May 30 Thur. 1315 Apr. 20 Sun. 1315 Oct. 13 Mon. 1316 Apr. 8 Thur. 1316 Oct. 1 Fri.	Jyeshtha.       1237         Vaiśākha       1238         Kārttika I       1238         Chaitra.       1239         Āśvina       1239	1 16 7 40 10 35 14 3 25 20	0 25 6 51 9 55 12 13 23 30	- - 13 16 24 34	- - 14 50 26 6	2 7 8 29 11 15 15 53 27 10	2·5 2·3 1·5 t. t.
1317 Mar. 28 Mon. 1317 Sept. 21 Wed. 1319 Feb 5 Mon. 1319 Aug. 1 Wed. 1320 Jan. 26 Sat.	Chaitra.       1240         Âśvina.       1240         Mûgha.       1241         Śrâvaṇa.       1242         Mûgha.       1242	14 42 17 30 13 40 21 40 5 11	13 10 15 50 12 30 20 33 3 20	17 18 — — — — — — — — — — — — — — — — — —	17 42 - 6 1	16 14 19 10 14 50 22 47 7 2	9·8 t. 4·8 4·4 t.
1320 July 20 Sun. 1321 Jan. 14 Wed. 1321 July 10 Fri. 1323 May 20 Fri. 1323 Nov. 13 Sun.	Śrâvaṇa       1243         Mâgha.       1243         Âshâḍha II       1244         Jyeshṭha.       1246         Mârgaśîrsha.       1246	22 11 20 10 3 16 25 39 13 51	20 19 18 37 1 57 23 54 12 4	21 20 — — 25 5 13 11	23 2 — 26 13 14 31	24 3 21 43 4 35 27 24 15 38	t. 9·9 6·6· t. t.

A. T.	Hindu Month	Time		from Laul		unrise,	Number of
A. D. Year, Month,	and	Greatest phase.	Begin- ning of		od of curation.	End of	twelfths celipsed.
and Day.	Current Saka Year.  [" $w.m.i.$ " = with mean intercalations.]	[i.e. mo- ment of fullmoon]	Eclipse.	Begin- ning.	End.	Eclipse.	["t."=total
1	2	h. m.	h. m.	h. m.	h. m.	h. m.	eclipse.]
1324 May 9 Wed. 1324 Nov. 1 Thur. 1326 Mar. 19 Wed. 1326 Sept. 12 Fri. 1327 Mar. 8 Sun.	Vaiśâkha II       1247         Kârttika       1247         Chaitra       1249         Bhâdrapada II       1249         Phâlguna       1249	16 23 20 50 9 55 16 53 13 1	14 39 19 9 9 19 15 54 11 11	15 53 20 30 — — 12 14	16 53 21 10  13 48	18 7 22 31 10 31 17 52 14 51	t. t. 1·2 3·4 t.
1327 Sept. 2 Wed. 1328 Feb. 25 Thur. 1328 Aug. 21 Sun. 1330 Jan. 5 Fri. 1330 July 1 Sun.	Bhâdrapada,       1250         Phâlguna       1250         Bhâdrapada       1251         Pausha       1252         Âshâdha       1253	4 23 23 8 8 51 18 27 1 37	2 33 21 32 7 23 17 21 0 12	3 34   	5 12 — — —	6 13 24 44 10 19 19 33 3 2	t. 10·9 8·4 4·3 7·8
1330 Dec. 26 Wed. 1331 June 20 Thur. 1331 Dec. 15 Sun. 1332 June 9 Tues. 1333 Apr. 30 Fri.	Pausha       1253         Âshâḍha       1254         Pausha       1254         Jyeshtha II       1255         Vaiśâkha       1256	2 22 15 34 3 19 8 48 14 57	0 32 13 43 1 47 7 43 14 29	1 33 14 44 — — —	3 11 -16 24   	4 12 17 25 4 51 9 53 15 25	t. t. 9·7 4·1 0·7
1333 Oct. 23 Sat. 1334 Apr. 19 Tues. 1334 Oct. 13 Thur. 1335 Apr. 8 Sat. 1335 Oct. 3 Tues.	Kârttika       1256         Vniśâkha       1257         Âśvina II       1257         Chaitra       1258         Âśvina       1258	18 58 21 2 9 45 21 40 1 43	18 22 19 14 7 56 20 3 0 1	20 19 9 0 — 1 22	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	19 34 22 50 11 34 23 17 3 25	1·2 t. t. 11·2 t.
1337 Feb. 15 Sat. 1337 Aug. 12 Tucs. 1338 Feb. 5 Thur. 1338 Aug. 1 Sat. 1339 Jan. 26 Tucs.	Phâlguna       1259         Śrâvaṇa II       1260         Mâgha.       1260         Śrâvaṇa.       1261         Mâgha.       1261	22 8 4 23 13 53 4 51 4 51	21 1 3 29 12 2 3 1 3 17	13 3 4 2 — —	14 43 5 40	23 15 5 17 15 44 6 41 6 25	4·5 2·8 t. t. 10·2
1339 July 21 Wed. 1341 May 31 Thur. 1341 Nov. 23 Fri. 1342 May 20 Mon. 1342 Nov. 13 Wed.	Srâvana       1262         Jyeshtha       1264         Mârgaśîrsha       1264         Jyeshtha       1265         Mârgaśîrsha       1265	10 20 9 10 22 1 23 38 5 20	8 52 7 28 20 15 21 52 3 37	$\begin{array}{ccc} & & \\ 8 & 47 \\ 21 & 23 \\ 23 & 0 \\ 4 & 55 \end{array}$	9 33 22 39 24 16 5 45	11 48 10 52 23 47 25 24 7 3	8·4 t. t. t.
1344 Sept. 23 Thur. 1345 Mar. 18 Fri. 1345 Sept. 12 Mon. 1346 Mar. 8 Wed. 1346 Sept. 1 Fri.	Aśvina       1267         Chaitra       1268         Âśvina       1268         Phâlguna       1268         Bhâdrapada       1269	0 57 20 38 11 56 7 19 15 48	0 7 18 49 10 6 5 42 14 16	19 54 11 9 —	21 22 12 43	1 47 22 27 13 46 8 56 17 20	2·4 t. t. 11·5 9·7
1348 Jan. 17 Thur. 1348 July 11 Fri. 1349 Jan. 5 Mon. 1349 June 30 Tues. 1349 Dec. 25 Fri.	Mâgha       1270         Âshâdha II       1271         Pausha       1271         Âshâdha       1272         Pausha       1272	3 5 8 47 10 39 23 1 11 18	2 0 7 30 8 49 21 9 9 46	9 51 22 9	11 27 23 53	4 10 10 4 12 29 24 53 12 50	4·2 6·2 t. t. 9·8
1350 June 20 Sun. 1351 Nov. 4 Fri. 1352 Apr. 30 Mon. 1352 Oct. 23 Tues. 1353 Apr. 19 Fri.	Ashâdha       1273         Mûrgaśirsha       1274         Vaiśâkha       1275         Kûrttika       1275         Vaiśâkha       1276	16 15 3 29 3 50 18 19 4 26	15 0 2 56 2 5 16 30 2 45	3 15 17 36 4 6		17 30 4 2 5 35 20 8 6 7	5·8 1·0 t. t.
1353 Oct. 13 Sun. 1355 Feb. 27 Fri. 1355 Aug. 23 Sun. 1356 Feb. 16 Tues. 1356 Aug. 11 Thur.	Âśvina       1276         Phâlguna       1277         Bhâdrapada       1278         Phâlguna       1278         Srâvaṇa II       1279	10 8 6 30 11 13 22 24 11 43	8 25 5 26 10 35 20 34 9 53	9 41 — 21 35 10 57	10 35 ————————————————————————————————————	11 51 7 34 11 51 24 14 13 33	t. 4·0 1·3 t. t.

A. D.	. Hindu Month	Time	measured take	from Land en as 6 A		unrise,	Number of
Year, Month,	and Current Śaka Year.	Greatest phase. [i.e. moment of	Begin- ning of Eclipse.	total obs	od of curation.	End of Eclipse.	twelfths eclipsed.
and Day.	["w.m.i." = with mean intercalations.]	h. m.	h. m.	ning.	h. m.	h. m.	["t."=total eclipse.]
1	2	3	4.	5	<u></u>	7	8
1357 Feb. 5 Sun. 1357 July 31 Mon. 1359 June 11 Tues. 1359 Dec. 5 Thur. 1360 May 31 Sun.	Mågha       1279         Śrâvaṇa       1280         Jyeshṭha II       1282         Mårgaśirsha       1282         Jyeshṭha       1283	13 21 17 31 16 33 6 18 6 43	11 47 15 58 14 56 4 32 4 54	5 40 5 58	- - 6 56 7 28	14 55 19 4 18 10 8 4 8 32	t.
1360 Nov. 23 Mon. 1362 Oct. 4 Tues. 1363 Mar. 30 Thur. 1363 Sept. 23 Sat. 1364 Mar. 18 Mon.	Mûrgasîrsha       1283         Âśvina       1285         Chaitra       1286         Âśvina       1286         Chaitra       1287	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	12 11 8 23 2 20 17 45 13 43	13 27 3 25 18 51 15 7	14 21 4 49 20 17 15 39	15 37 9 51 5 54 21 23 17 3	
1364 Sept. 11 Wed. 1366 Jan. 27 Tues. 1366 July 22 Wed. 1367 Jan. 16 Sat. 1367 July 12 Mon.	Bhâdrapada II       1287         Mâgha.       1288         Śrâvaṇa.       1289         Mâgha.       1289         Âshâḍha I.       1290	22 56 11 33 16 0 18 49 6 30	21 20 10 31 14 52 16 59 4 38	- - 18 1 5 38	19 87 7 22	24 32 12 35 17 8 20 39 8 22	3·8 4·6 t.
1368 Jan. 5 Wed. 1368 June 30 Fri. 1369 Nov. 14 Wed. 1370 May 11 Sat. 1370 Nov. 4 Mon.	Pausha       1290         Âshâḍha       1291         Mârgaśîrsha       1292         Vaiśâkha II       1293         Kârttika       -1293	19 22 23 42 12 3 10 34 3 0	17 49 22 20 11 35 8 52 1 12	- - 10 12 2 18	10 56 3 42	20 55 25 4 12 31 12 16 4 48	10·0 7·3 0·7 t. t.
1371 Apr. 30 Wed. 1371 Oct. 24 Fri. 1373 Mar. 9 Wed. 1374 Feb. 27 Mon. 1374 Aug. 22 Tues.	Vaiśâkha.       1294         Kârttika.       1294         Phâlguna.       1295         Phâlguna.       1296         Bhâdrapada.       1297	11 8 18 35 14 38 6 51 18 38	9 23 16 52 13 38 5 1 16 51	10 35 18 7 — 6 2 17 56	11 41 19 3  7 40 19 20	12 53 20 18 15 38 8 41 20 25	t. t. 3.5 t. t.
1375 Feb. 16 Fri. 1375 Aug. 11 Sat. 1377 June 21 Sun. 1377 Dec. 15 Tues. 1378 June 11 Fri.	Phâlguna       1297         Śrâvaṇa II       1298         Âshâḍha       1300         Pausha       1300         Jyeshṭha II       1301	21 43 24 45 23 58 14 34 13 51	20 8 23 8 22 26 12 48 12 1	  13 57 13 2	15 11 14 40	23 18 26 22 25 30 16 20 15 41	10·8 11·5 9·6 t. t.
1378 Dec. 4 Sat. 1379 May 31 Tues. 1380 Oct. 14 Sun. 1381 Apr. 9 Tues. 1381 Oct. 4 Fri.	Mårgaśirsha       1301         Jyeshtha.       1302         Kårttika I.       1303         Vaiśakha I.       1304         Áśvina.       1304	22 32 20 51 17 22 11 31 3 18	20 49 20 20 16 47 9 46 1 31	22 5 — — 10 56 2 37	22 59  12 6 3 59	24 15 21 22 17 57 13 16 5 5	t. 0·9 1·1 t.
1382 Mar. 29 Sat. 1382 Sept. 23 Tues, 1384 Feb. 7 Sun. 1384 Aug. 1 Mon. 1385 Jan. 27 Fri.	Chaitra.       1305         Âśvina.       1305         Mâgha.       1306         Śrâvaṇa.       1307         Mâgha.       1307	23 15 6 11 19 59 23 18 2 56	21 32 4 33 19 0 22 19 1 6	22 48 — — 2 9	23 42 — — — 3 43	24 58 7 49 20 58 24 17 4 46	t. 11·8 3·4 3·4 t.
1385 July 22 Sat. 1386 Jan. 16 Tues. 1386 July 12 Thur. 1387 Nov. 25 Mon. 1388 May 21 Thur.	Śrâvana       1308         Mâgha.       1308         Âshâḍha II       1309         Mârgaśirsha       1310         Jyeshṭha       1311	14 3 3 17 7 12 20 46 17 12	12 11 1 43 5 42 20 18 15 35	13 12 — — — —	14 54 — — — —	15 55 4 51 8 42 21 14 18 49	t. 10·3 8·9 0·7 11·3
1388 Nov. 14 Sat. 1389 May 10 Mon. 1389 Nov. 4 Thur. 1390 Apr. 29 Fri. 1391 Mar. 20 Mon.	Mårgaśirsha       1311         Jyeshtha I       1312         Kårttika       1312         Vaiśákha       1313         Chaitra       1314	11 45 17 44 3 9 21 9 22 48	9 58 15 57 1 25 20 58 21 57	11 4 17 3 2 38 —	12 26 18 25 3 40 —	13 32 19 31 4 53 21 20 23 39	t. t. t. 0·1 2·5

. D	Hindu Month	Time		from Lank ten as 6 A		unrise,	Number of
A.D.	and	Greatest	Begin-	Perio	d of curation.	End	twelfths
Year, Month, and Day.	Current Śaka Year.	[i.e. mo- ment of	Eclinse	Begin-	End.	of Eclipse.	eclipsed. ["t."=total
und Day.	["w.m.i." = with mean intercalations.]	h. m.	h. m.	h. m.	h. m.	h. m.	eclipse.]
1	2	3	4	5	6	7	8
1392 Mar. 9 Sat. 1392 Sept. 1 Sun. 1393 Feb. 27 Thur. 1393 Aug. 22 Fri. 1395 July 3 Sat.	Phâlguna       131         Bhâdrapada       131         Phâlguna       131         Bhâdrapada       131         Âshâḍha       131	25 43 5 58 8 9	13 19 23 57 4 21 6 28 5 57	$ \begin{array}{c cccc} 14 & 22 \\ 25 & 7 \\  & - \\  & 7 & 49 \\  & - \\ \end{array} $	15 56 26 19 — 8 29	16 59 27 29 7 35 9 50 8 47	$egin{array}{c} t. \\ t. \\ 11 \cdot 4 \\ t. \\ 7 \cdot 9 \end{array}$
1395 Dec. 26 Sun. 1396 June 21 Wed. 1396 Dec. 15 Fri. 1397 June 11 Mon. 1398 Oct. 26 Sat.	Pausha       131         Âshâḍha       131         Pausha       131         Jyeshtha II       132         Kârttika       132	$\begin{array}{c cccc} 20 & 48 \\ 7 & 15 \\ 3 & 29 \end{array}$	21 9 18 57 5 31 2 36 1 24	22 19 19 58 6 46 —	23 31 21 38 7 44 —	24 41 22 39 8 59 4 22 2 10	t. t. t. 2·7 0·5
1399 Apr. 20 Sun. 1399 Oct. 15 Wed. 1400 Apr. 9 Fri. 1400 Oct. 3 Sun. 1402 Feb. 18 Sat.	Vaiśákha.       132         Kârttika I.       132         Chaitra II.       132         Áśvina.       132         Phâlguna.       132	11 13 7 3 13 37	17 5 9 27 5 18 11 56 3 15	18 22 10 35 6 29 13 17	19 14 11 51 7 37 13 57	20 31 12 59 8 48 15 18 .5 5	t. t. t. 2·9
1402 Aug. 13 Sun. 1403 Feb. 7 Wed. 1403 Aug. 2 Thur. 1404 Jan. 27 Sun. 1404 July 22 Tues.	Bhâdrapada I,       132         Mâgha.       132         Śrâvaṇa       132         Mâgha.       132         Śrâvaṇa       132	10 58 21 36 11 12	5 59 9 8 19 46 9 37 13 8	10 12 20 47	 11 44 22 25  	7 29 12 48 23 26 12 47 16 16	1·9 t. t. 10·7 10·4
1405 Dec. 6 Sun. 1406 June 1 Tues. 1406 Nov. 25 Thur. 1407 May 21 Sat. 1407 Nov. 15 Tues.	Mârgaśîrsha       132         Jyeshtha       132         Mârgaśîrsha       132         Jyeshtha       133         Mârgaśîrsha       133	$egin{array}{c cccc} 23 & 41 \\ 20 & 30 \\ 24 & 15 \\ \hline \end{array}$	5 3 22 10 18 43 22 25 10 0	19 50 23 28 11 12	21 10 25 2 12 18	5 59 25 12 22 17 26 5 13 30	0·7 9·5 t. t. t.
1408 May 10 Thur. 1409 Mar. 31 Sun. 1410 Mar. 20 Thur. 1410 Sept. 13 Sat. 1411 Mar. 10 Tues.	Vaiśâkha II       133         Chaitra.       133         Chaitra.       133         Bhâdrapada II       133         Phâlguna       133	$\begin{bmatrix} 6 & 42 \\ 3 & 23 & 16 \\ 8 & 8 & 59 \end{bmatrix}$	$\begin{bmatrix} 6 & 0 \\ 21 & 27 \\ 7 & 15 \end{bmatrix}$	22 31 8 30 14 1	$ \begin{array}{c cccc}  & - & \\  & 24 & 1 \\  & 9 & 28 \\  & 14 & 1 \end{array} $	$\begin{array}{c cccc} 4 & 53 \\ 7 & 24 \\ 25 & 5 \\ 10 & 43 \\ 15 & 40 \\ \end{array}$	1·8 1·6 t. t.
1411 Sept. 2 Wed. 1413 July 13 Thur. 1414 Jan. 6 Sat. 1414 July 3 Tues. 1414 Dec. 26 Wed.	Bhâdrapada.       133         Âshâdha II.       138         Pausha.       133         Âshâdha.       138         Pausha.       138	$egin{array}{c cccc} 5 & 14 & 47 \ 3 & 7 & 14 \ 7 & 3 & 54 \ \end{array}$	13 30 5 28 2 2	15 13 6 38 3 2 15 26	16 15  7 50 4 46 16 26	17 28 16 4 9 0 5 46 17 40	t. 6·2 t. t.
1415 June 22 Sat. 1416 Nov. 5 Thur. 1417 May 1 Sat. 1417 Oct. 25 Mon. 1418 Apr. 20 Wed.	Âshâdha       138         Kârttika       138         Vaiśâkha       134         Kârttika       134         Vaiśâkha       134	$egin{array}{c cccc} 9 & 10 & 12 \\ 0 & 2 & 2 \\ 0 & 19 & 11 \\ \end{array}$	$\begin{array}{ c c c c }\hline 9 & 54 \\ 0 & 23 \\ 17 & 25 \\ \end{array}$	l	2 9 19 46 15 25	11 6 10 30 3 41 20 57 16 31	t. t. 4·3 0·3 t. t. t.
1418 Oct. 14 Fri. 1419 Apr. 10 Mon. 1420 Feb. 29 Thur. 1420 Aug. 23 Fri. 1421 Feb. 17 Mon.	Kârttika I.       134         Chaitra.       134         Phâlguna       134         Bhâdrapada.       134         Phâlguna       134	$egin{array}{c cccc} 2 & 7 & 15 \ 2 & 12 & 20 \ 3 & 14 & 17 \ \end{array}$	6 49 11 31 13 51	-  -	21 34 — — — — — — — — — — — — — — — — — —	22 51 7 41 13 9 14 43 20 35	t. 0·6 2·3 0·6 t.
1421 Aug. 13 Wed. 1422 Feb. 6 Fri. 1422 Aug. 2 Sun. 1423 Dcc. 17 Fri. 1424 June 12 Mon.	Śrâvaṇa II       184         Mâgha       136         Śrâvaṇa       138         Pausha       138         Âshûḍha I       138	$egin{array}{c cccc} 4 & 18 & 57 \ 5 & 22 & 13 \ 6 & 14 & 21 \ \end{array}$	17 20 20 35 13 51		6 5	7 9 20 34 23 51 14 51 7 29	t. 11·2 11.8 0·8 7·5

· .	Nindu Month	Time	measured Inke	from Lanl en as 6 A.		unrise,	Number of
A. D. Year, Month,	and	Greatest phase.	Begin-	Perio	od of curation.	End	twelfths eclipsed.
and Day.	Current Śaka Year.	[i.c. mo- ment of full moon]	ning of Eclipse.	Begin- ning.	End.	of Eclipse.	["t."=total
	["w.m.i." = with mean intercalations.]	h. m	h. m.	h. m.	h, m.	h. m.	eclipse.]
1	2	3	4	5	6 .	7	8
1424 Dec. 6 Wed. 1425 June 1 Fri. 1425 Nov. 25 Sun. 1426 May 21 Tues. 1427 Apr. 11 Fri.	Mûrgaśirsha       1347         Jyeshtha       1348         Mûrgaśirsha       1348         Jyeshtha       1349         Vaiśûkha I       1350	5 23 6 46 20 26 11 8 14 36	3 36 4 55 18 41 10 8 14 13	4 42 5 56 19 53	6 4 7 36 20 59 —	$\begin{array}{c cccc} 7 & 10 \\ 8 & 37 \\ 22 & 11 \\ 12 & 8 \\ 14 & 59 \end{array}$	t. t. t. 3·5 0·5
1428 Mar. 31 Wed. 1428 Sept. 23 Thur. 1429 Mar. 20 Sun. 1429 Sept. 12 Mon. 1430 Sept. 2 Sat.	Chaitra       1351         Âśvina       1351         Chaitra       1352         Bhâdrapada II       1352         Bhâdrapada       1353	7 19 16 26 21 59 23 29 13 14	5 32 14 45 20 17 21 43 13 3	6 38 16 7 21 38 22 53	8 0 16 45 22 20 24 5	9 6 18 7 23 41 25 15 13 25	t. t. t. t. 0·1
1431 July 24 Tucs. 1432 Jan. 17 Thur. 1432 July 13 Sun. 1433 Jan. 5 Mon. 1433 July 2 Thur.	Śrâvaṇa       1354         Mâgha       1354         Âshaḍha II       1355         Pausha       1355         Âshâḍha       1356	22 16 15 28 10 55 24 39 16 31	21 6 13 42 9 3 22 55 15 14	14 52 10 4 24 9	16 4 11 46 25 9	23 26 17 14 12 47 26 23 17 48	4·8 t. t. t. 6·2
1435 May 12 Thur. 1435 Nov. 6 Sun. 1436 Apr. 30 Mon. 1436 Oct. 25 Thur. 1437 Apr. 20 Sat.	Jyeshtha I       1358         Kârttika       1358         Vaiśâkha       1359         Kêrttika       1359         Vaiśâkha       1360	9 9 3 14 22 19 4 47 15 7	7 34 1 29 20 30 3 3 14 22	2 41 21 34 4 16	$\begin{bmatrix} - \\ 3 & 47 \\ 23 & 4 \\ 5 & 18 \\ - \end{bmatrix}$	10 44 4 59 24 8 6 31 15 52	10·6 t. t. t. 1·9
1438 Mar. 11 Tues. 1439 Mar. 1 Sun. 1439 Aug. 24 Mon. 1440 Feb. 18 Thur. 1440 Aug. 13 Sat.	Phâlguna.       1360         Phâlguna.       1361         Bhâdrapada       1362         Phâlguna       1362         Śravaṇa II       1363	20 14 2 23 13 8 2 33 5 55	19 35 0 35 11 20 0 55 4 13	1 41 12 26 - 5 33	$\begin{bmatrix} - \\ 3 & 5 \\ 13 & 50 \\ - \\ 6 & 17 \end{bmatrix}$	20 53 4 11 14 56 4 11 7 37	1·4 t. t. 11·7 t.
1441 Dec. 27 Wed. 1442 June 23 Sat. 1442 Dec. 17 Mon. 1443 June 12 Wed. 1443 Dec. 7 Sat.	Pausha       1364         Âshâḍha       1365         Pausha       1365         Âshâḍha I       1366         Mârgaśîrsha       1366	23 7 12 35 14 21 13 15 5 13	22 41 11 21 12 34 11 23 3 29	13 41 12 23 4 40	15 1 14 7 5 46	23 33 13 49 16 8 15 7 6 58	0.6 5.7 t., t.
1444 May 31 Sun. 1446 Apr. 11 Mon. 1446 Oct. 4 Tues. 1447 Apr. 1 Sat. 1447 Sept. 24 Sun.	Jycshtha       1367         Vaiśâkha I       1369         Âśvina.       1369         Chaitra       1370         Âśvina       1370	18 3 15 14 24 2 5 46 7 20	16 · 51 13 · 28 22 · 23 4 · 2 5 · 33	14 38 23 55 5 16 6 39	15 50 24 9 6 16 8 1	19 15 17 0 25 41 7 30 9 7	5·2 t. t. t. t.
1448 Sept. 12 Thur. 1449 Aug. 4 Mon. 1450 Jan. 27 Tucs. 1450 July 24 Fri. 1451 Jan. 17 Sun.	Bhâdrapada II       1371         Śrâvaṇa       1372         Mâgha       1372         Śrâvaṇa       1373         Mâgha       1373	$\begin{bmatrix} 21 & 14 \\ 5 & 45 \\ 23 & 41 \\ 17 & 57 \\ 9 & 16 \end{bmatrix}$	20 38 4 46 21 56 16 7 7 32	23 6 17 8 8 44	24 16 18 46 9 48	21 50 6 44 25 26 19 47 11 0	1·2 · 3.4 · t. · t. · t.
1451 July 13 Tues. 1453 May 22 Tues. 1453 Nov. 16 Fri. 1454 May 12 Sun. 1454 Nov. 5 Tues.	Ashâdha II       1374         Jycshtha       1876         Mârgaśirsha       1376         Jycshtha I       1377         Kârttika       1377	23 4 16 17 11 27 5 50 12 33	21 38 14 47 9 43 4 0 10 48	10 55 5 1 11 59	11 59 6 39 13 7	24 30 17 47 13 11 7 40 14 18	8·0 9·0 . t. t. . t.
1455 May 1 Thur. 1456 Mar. 22 Mon. 1457 Mar. 11 Fri. 1457 Sept. 3 Sat. 1458 Feb. 28 Tues.	Vaiśâkha.       1878         Chaitra.       1379         Phâlguna.       1379         Bhâdrapada       1380         Phâlguna.       1380	22 48 4 2 9 55 21 9 10 3	21 51 3 44 8 9 19 23 8 23	9 17 20 32 9 47	10 33 21 46 10 19	23 45 4 20 11 41 22 55 11 43	3·1 0·3 t. t. t.

	Hindu Month	Time		from Laúl en as 5 A		un <b>ri</b> se,	Number of
A, D.	and	Greatest phase.	Begin-	Perio	od of	End	twelfths
Year, Month,	Current Śaka Year.	[i.c. mo- ment of	ning of Eclipse.	total obs	End.	of Eclipse.	cclipsed.
and Day.	["w,m,i" = with mean intercalations.]	h. m.	h. m.	h. m.	h. m.	h. m.	["t."=total eclipse.]
1	2	3	4	5	6	7	8
1458 Aug. 24 Thur. 1460 Jan. 8 Tucs. 1460 July 3 Thur. 1460 Dec. 27 Sat. 1461 June 22 Mon.	Bhâdrapada.       1381         Pausha.       1382         Âshâdha.       1383         Pausha.       1383         Âshâdha.       1384	13 43 7 52 19 1 23 11 19 42	11 58 7 24 18 0 21 24 17 51	13 10 	14 16  23 50 20 32	15 28 .8 20 20 2 24 58 21 33	t. 0·7 3·6 t. t.
1461 Dec. 17 Thur. 1462 June 11 Fri. 1464 Apr. 21 Sat. 1464 Oct. 15 Mon. 1465 Apr. 11 Thur.	Pausha       1384         Âshāḍha I       1385         Vaiśākha       1387         Kārttika       1387         Chaitra II.       1388	13 56 24 58 22 58 7 47 13 24	12 11 23 38 21 14 6 10 11 38	13 22 22 29 12 48	14 30 23 27 14 0	15 41 26 18 24 42 .9 24 15 10	t. 6·9 t. 11·5 t.
1465 Oct. 4 Fri. 1466 Sept. 24 Wed. 1467 Aug. 15 Sat. 1468 Feb. 8 Mon. 1468 Aug. 3 Wed.	Âśvina       1388         Âśvion       1359         Bhâdrapada I       1390         Mâgha       1390         Śrâvaṇa       1391	15 21 5 21 13 17 7 51 25 5	13 33 4 34 12 34 6 7 23 16	14 38  7 19 24 20	16 4  8 23 25 50	17 9 6 8 14 0 9 35 26 54	t. 2·1 1·7 t. t.
1469 Jan. 27 Fri. 1469 July 24 Mon. 1470 Jan. 17 Wed. 1471 June 2 Sun. 1471 Nov. 27 Wed.	Mûgha       1391         Śrávapa       1392         Mûgha       1392         Jyeshtha       1394         Mûrgašîrsha       1394	17 52 5 39 8 50 23 24 19 36	16 7 4 7 8 39 22 1 17 52	17 18 — — — — 19 5	18 26 — — 20 7	19 37 7 11 9 1 24 47 21 20	t. 9·7 0·1 7·5 t.
1472 May 22 Fri. 1472 Nov. 15 Sun. 1473 May 12 Wed. 1473 Nov. 4 Thur. 1475 Mar. 22 Wed.	Jyeshtha         1395           Mûrgasîrsha         1395           Jyeshtha I         1396           Kûrttika         1396           Chaitra         1398	13 20 20 26 6 26 20 7 17 17	11 28 18 41 5 17 19 56 15 32	12 29 19 51 — — 16 41	11 11 21 1 — — 17 50	15 12 22 11 7 35 20 18 19 2	t. t. 4·7 0 1 t.
1475 Sept. 15 Fri. 1476 Mar. 10 Sun. 1476 Sept. 3 Tues. 1478 Jan. 18 Sun. 1478 July 15 Wed.	Âśvina I       1395         Phálguna       1398         Bhádrapada       1399         Mūgha       1400         Śrāvaṇa I       1401	5 9 17 27 21 36 16 32 1 28	3 24 15 44 19 50 16 9 0 43	4 36 17 0 20 58	5 42 17 54 22 14	6 54 19 10 23 22 16 55 2 13	t. t. t. 0·5 1·9
1479 Jan. 8 Fri. 1479 July 4 Sun. 1479 Dec. 28 Tues. 1480 June 22 Thur. 1482 May 3 Fri.	Pausha       1401         Âshâḍha       1402         Pausha       1402         Âshâḍha       1403         Vaiśákha       1405	S 3 2 14 22 44 7 51 6 36	6 16 0 24 20 59 6 21 4 56	7 24 1 26 22 11 6 22	8 42 3 2 23 17 6 50	9 50 4 4 24 20 9 21 8 16	t. t. 1. 8 9 t.
1492 Oct. 26 Sat. 1483 Apr. 22 Tacs. 1483 Oct. 15 Wed. 1484 Oct. 4 Mon. 1485 Aug. 25 Thur.	Kârttika       1405         Vaiśākha       1406         Kârttika       1406         Āśvina.       1407         Bhūdrapada.       1408	15 44 20 49 23 35 13 42 21 4	14 8 19 1 21 46 12 49 20 38	20 7 22 50 —	21 31 21 20 —	17, 20 22 37 25 24 14 35 21, 30	11·1· t. t. 2·7 0·6
1486 Feb. 18 Sat. 1486 Aug. 15 Tues. 1487 Feb. 8 Thur. 1487 Aug. 4 Sat. 1488 Jan. 28 Mon.	Phâlguna       1408         Śrâvaṇa II       1409         Mâgha       1409         Śrâvaṇa       1410         Mâgha       1410	15 50 8 15 2 21 12 23 17 35	14 6 6 28 0 35 10 46 17 9	15 20 . 7 84 1 46	16 20 8 56 2 56	17 34 10 2 4 7 14 0 18 1	t. t. t. 11 · 3 0 · 6
1489 June 13 Sat. 1489 Dec. 8 Tues. 1490 June 2 Wed. 1490 Nov. 27 Sat. 1491 May 23 Mon.	Âshûdha I       1412         Mûrgasîrsha       1412         Jyeshtha       1413         Mûrgasîrsha       1413         Jyeshtha       1414	6 26 3 54 20 49 4 25 13 56	5 11 2 11 18 57 2 30 12 40	3 26 19 57 3 49	4 22 21 41 5 1	7 41 5 37 22 41 6 11 15 12	5·9 t. t. t. 6·0

4.70	Hindu Month	T	ime			from Lańk m as 6 A.		unrisc	,	Number of
A. D. Year, Month,	and	Grea pha	sc.	Begin ning		Perio		E		twelfths eclipsed.
and Day.	Current Śaka Year. $["w.m.i." = with mean intercalátions.]$	[i,c.: men fullm	t of	Eclip	- 1	Begin- ning.	End.	Ecli	_	[" t." = total
1	2	h.		lı. 1 4	ın.	h. m.	<u>h. m.</u>	<u>h.</u>		eclipse.]
1491 Nov. 16 Wed.	Mårgaśirsha	4	9		46			.1	32	0 5
1493 Apr. 1 Mon. 1493 Sept. 25 Wed. 1494 Mar. 21 Fri. 1494 Sept. 15 Mon.	Chaitra       1416         Âśviun       1416         Chaitra       1417         Bhâdrapada II       1417	24 18 24 5	28 19 35 31	11 22	46 36 50 44	24 4 12 52 25 1 4 49	24 52 13 46 25 9 6 13	26 15 26 7	10 2 20 18	t. t. t. t.
1496 Jan. 30 Sat. 1497 Jan. 18 Wed. 1497 July 14 Fri. 1498 Jan. 8 Mon. 1498 July 3 Tucs.	Mågha       1418         Någha       1419         Šråvana I       1420         Pausha       1420         Åshådha       1421	1 16 8 7 14	13 53 45 25 55	15 6 5	50 7 56 40 20	16 16 8 2 6 51	17 30 9 28 7 59	1 18 10 9 16	36 39 34 10 30	0·5 t. t. t. 10·6
1500 May 13 Wed. 1500 Nov. 5 Thur. 1501 May 3 Mon. 1501 Oct. 26 Tues. 1502 Oct. 15 Sat.	Jyeshtha I       1423         Kûrttika       1423         Vaiśâkha       1424         Kûrttika       1424         Kûrttika       1425	14 23 4 7 22	13 48 13 53	22	38 13 23 3		4 59 8 40 —	15 25 6 9 23	48 23 3 43 5	10·8 10·7 t. t. 3·2
1504 Feb. 29 Thur. 1504 Aug. 25 Sun. 1505 Feb. 18 Tues. 1505 Aug. 14 Thur. 1506 Feb. 8 Sun.	Phâlguna.       1426         Bhâdrapada       1427         Phâlguna       1427         Śrâvaṇa II       1428         Mâgha.       1428	23 15 10 19 2	42 28 44 5	13 8 17	59 43 58 23 40	23 17 14 54 10 6 18 43	24 7 16 2 11 22 19 27	25 17 12 20 2	25 13 30 47 40	t. t. t. t. 0.8
1507 June 24 Thur. 1507 Dec. 19 Suu. 1508 June 13 Tues. 1508 Dec. 7 Thur. 1509 June 2 Sat.	Âshâḍha       1430         Pausha       1430         Âshâḍha I       1431         Mûrgaśirsha       1431         Jyeshṭha       1432	13 12 4 12 21	33 11 14 24 26	10 2	26 28 22 38 2	11 45 3 22 11 47	12 37 5 6 13 1	14 13 6 14 22	40 54 6 10 50	4·4 t. t. t. 7·7
1509 Nov. 26 Mon. 1511 Apr. 13 Sun. 1511 Oct. 6 Mon. 1512 Apr. 1 Thur. 1512 Sept. 25 Sat.	Mûrgaśîrsha       1432         Vaiśūkha I       1434         Âśvina       1434         Chaitra       1435         Âśvina       1435	12 7 21 7 13	17 25 44 41 35	5 20 5	51 47 2 54 46	21 22 7 1 12 51	22 6 8 21 14 19	12 9 23 9 15	43 3 26 28 24	0.6 11.8 t. t. t.
1513 Mar. 21 Mon. 1513 Sept. 15 Thur. 1514 Feb. 9 Thur. 1515 Jan. 29 Mon. 1515 July 25 Wed.	Chaitra       1436         Bhâdrapada II       1436         Mâgha       1436         Mâgha       1437         Śrâvaṇa       1438	10 1 9 25 15	25 29 45 36 28	9 23	7 18 30 50 42	25 0 14 52	26 12 16 4	10 1 10 27 17	43 40 0 22 14	0·3 0·1 0·2 t. t.
1516 Jan. 19 Sat. 1516 July 13 Sun. 1518 May 24 Mon. 1518 Nov. 17 Wed. 1519 May 14 Sat.	Magha       1438         Śravana I       1439         Jyeshtha       1441         Margaśirsha       1441         Jyeshtha I       1442	16 21 21 7 11	1 57 42 58 28	20 20 6	16 17 11 23 38	15 26 21 43 — — 10 39	16 36 22 11 — — 12 17	17 23 23 9 13	46 37 13 33 18	t. t. 9·2 10·6 t.
1519 Nov. 6 Sun. 1520 May 2 Wed. 1520 Oct. 26 Fri. 1522 Mar. 12 Wed. 1522 Sept. 5 Fri.	Kârttika       1442         Vaiśâkha       1443         Kârttika       1443         Chaitra       1445         Bhâdrapada       1445	16 18 6 7 22	20 14 41 30 49	17 5	30 35 39 50 6	15 33 — 7 14 22 24	7 46 23 14	18 18 7 9 24	10 53 43 10 32	t. 1·4 3·8 t. t.
1523 Mar. 1 Sun. 1523 Aug. 26 Wed. 1524 Feb. 19 Fri. 1525 July 4 Tues. 1525 Dec. 29 Fri.	Phâlguna       1445         Bhâdrapada       1446         Phâlguna       1446         Âshâḍha       1448         Pausha       1448	19 1 10 20 20	1 56 41 42 23	0 10 19	14 11 3 49 41	18 20 1 23 — — 19 59	19 42 2 29 — — 20 47	20 3 11 21 22	48 41 19 35 5	t. t. 1·3 2·7 t.

	Hindu Month		Time		from Lañ en as 5 A		unrise,	Number of
A. D. Year, Month,	and		atest asc.	Begin-		od of scuration.	End	twelfths colipsed.
and Day.	Current Śaka Year.	me	mo- nt of	ning of Eclipse.	Begin- ning.	End.	of Eclipse.	["t."= total
and Day.	["w.m.i." = with mean intercalations.]	1	m.	h. m.	h. m.	h. m.	h. m.	eclipse.]
1	2		3	4	, 5	в	7	8
1526 June 24 Sun. 1526 Dec. 18 Tues. 1527 June 14 Fri. 1527 Dec. 7 Sat. 1529 Apr. 23 Fri.	Âshâḍba       1449         Pausha       1449         Âshâḍha I       1450         Mârgaśirsha       1450         Vaiśâkha       1452	11 20 4 20 14	39 27 55 32 21	9 48 18 41 3 25 20 1 12 47	10 49 19 49 — — —	12 29 21 5 ————————————————————————————————————	13 80 22 13 6 25 21 3 15 55	t. t. 9·1 0·9 10·4
1529 Oct. 17 Sun. 1530 Apr. 12 Tues. 1530 Oct. 6 Thur. 1531 Apr. 1 Sat. 1531 Sept. 26 Tues.	Kûrttika       1452         Vniśûkha I       1453         Âśvina       1453         Chaitra       1454         Âśvina       1454	6 14 21 17 9	11 36 49 49 10	4 31 12 47 19 59 17 7 8 40	5 59 13 51 21 3 —	6 23 15 21 22 35 —	7 51 16 25 23 39 18 31 9 40	t. t. t. 1 6 0 8
1533 Feb. 9 Sun. 1533 Aug. 4 Mon. 1534 Jan. 29 Thur. 1534 July 25 Sat. 1536 June 4 Sun.	Mâgha       1455         Śrâvaṇa       1456         Mâgha       1456         Śrâvaṇa       1457         Jyeshṭḥa       1459	10 22 24 5 5	15 17 36 9 10	8 30 20 34 22 50 3 25 3 46	9 40 21 51 24 0 4 39	10 50 22 43 25 12 5 39	12 0 24 0 26 22 6 53 6 34	t. t. t. t. 7 · 7
1536 Nov. 27 Mon. 1537 May 24 Thur. 1537 Nov. 16 Fri. 1538 May 14 Tues. 1538 Nov. 6 Wed.	Mårgasirsha       1459         Jyeshtha       1460         Mårgasirsha       1460         Jyeshtha I       1461         Kårttika       1461	16 18 24 0 15	13 32 53 59 18	14 39 16 40 23 3 0 3 14 15	17 41 24 5	19 23 25 41 —	17 47 20 24 26 43 1 55 16 21	10·4 t. t. 3·0 3·9
1540 Mar. 22 Mon. 1540 Sept. 16 Thur. 1541 Mar. 12 Sat. 1541 Sept. 5 Mon. 1542 Mar. 1 Wed.	Chaitra       1463         Âśvina I       1463         Chaitra I       1464         Bhâdrapada       1464         Phâlguna       1464	15 6 3 ' 8 19	13 17 10 57 10	13 35 4 37 1 21 7 10 18 27	6 3 2 27 8 18	6 31 3 53 9 36	16 51 7 57 4 59 10 44 19 53	11·8 t. t. t. 1·7
1543 July 16 Mon. 1544 Jan. 10 Thur. 1544 July 4 Fri. 1544 Dec. 29 Mon. 1545 June 24 Wed.	Śrâvaṇa I       1466         Pausha       1466         Âshâḍha       1467         Pausha       1467         Âshâḍha       1468	3 4 19 4 12	57 38 5 31 19	3 22 2 56 17 15 2 44 10 44	4 16 18 17 3 52	5 0 19 53 5 10	4 32 6 20 20 55 6 18 13 54	1·1 t. t. t. 10·8
1545 Dec. 18 Fri. 1547 May 4 Wed. 1547 Oct. 28 Fri. 1548 Apr. 22 Sun. 1548 Oct. 17 Wed.	Pausha       1468         Vaiśâkha       1470         Kârttika       1470         Vaiśâkha       1471         Kârttika       1471	4 21 14 21 6	45 2 43 25 6	4 10 19 32 13 4 19 35 4 16	 14 43 20 37 5 18	 14 43 22 13 6 54	5 20 22 32 16 22 23 15 7 56	1·1 8·9 t. t. t.
1549 Apr. 12 Fri. 1549 Oct. 6 Sun. 1551 Feb. 20 Fri. 1551 Aug. 16 Sun. 1552 Feb. 10 Wed.	Vaisâkha I       1472         Âśvina       1472         Phâlguna       1473         Bhâdrapada I       1474         Mâgha       1474	1 17 18 5 8	8 3 42 9 59	0 13 16 21 16 57 3 30 7 13	 18 9 5 9 8 23	 19 15 5 9 9 35	2 3. 17 45 20 27 6 48 10 45	2·9 1·6 t. t. t.
1552 Aug. 4 Thur. 1554 June 15 Fri. 1554 Dec. 8 Sat. 1555 June 4 Tues. 1555 Nov. 28 Thur.	Śrâvana       1475         Âshâḍha I       1477         Mûrgaśîrsha       1477         Jyeshtha       1478         Mârgaśîrsha       1478	12 12 24 25 9	23 30 33 36 33	10 36 11 15 23 0 23 44 7 43	11 44  24 44 8 45	13 2 — 26 28 10 21	14 10 13 45 26 6 27 28 11 23	t. 5·9 10·1 t. t.
1556 May 24 Sun. 1556 Nov. 16 Mon. 1558 Apr. 2 Sat. 1558 Sept. 27 Tues. 1559 Mar. 23 Thur.	Jyeshtha.       1479         Mårgasirsha       1479         Chaitra.       1481         Âśvina       1481         Chaitra.       1482	7 24 22 13 11	37 6 45 54 16	6 29 23 1 21 10 12 17 9 26	10 30	12 2	8 45 25 11 24 20 15 31 13 6	4.6 4.2 10.8 11.3 t.

	Hindu Month	Time	mensured	from Lank en as 6 A.	a mean st	ınrise,	Number of
A, D.	and	Greatest phase.	Begin-	Perio	d of	End	twelfths
Year, Month, and Day.	Current Śaka Year.	[1.e. mo- ment of	ning of Eclipse.	Begin-	End.	of Eclipse.	eclipsed. ["t."=total
and Day.	["w.m.i." = with mean intercalations.]	h. m.	h. m.	h. m.	h. m.	h. m.	eclipse.]
1	2	3	4	5	в	7	8
1559 Sept. 16 Sat. 1560 Mar. 12 Tues. 1560 Sept. 4 Wed. 1562 Jan. 20 Tues. 1562 July 16 Thur.	Âśvina I       1482         Phâlguna       1482         Bhâdrapada       1483         Mâgha       1484         Śrâvana I       1485	16 2 3 26 16 11 12 42 2 38	$\begin{array}{c cccc} 14 & 13 \\ 2 & 35 \\ 15 & 36 \\ 11 & 1 \\ 0 & 49 \\ \end{array}$	15 19 — 12 22 1 54	16 45 — 13 2 3 22	17 51 4 17 16 46 14. 23 4 27	t. 2·5 1·1 , t. t.
1563 Jan. 9 Sat, 1563 July 5 Mon. 1563 Dec. 29 Wed. 1565 May 15 Tues. 1565 Nov. 7 Wed.	Pausha       1485         Âshâḍha       1486         Pausha       1486         Jyeshtha       1488         Kârttika       1488	12 27 19 45 12 59 3 38 23 24	10 40 18 5 12 21 2 16 21 47	11 47 19 29 — — —	13 7 20 1 —	14 14 21 25 13 37 5 0 25 1	t. t. 1·3 · 7·2 11·4
1566 May 4 Sat. 1566 Oct. 28 Mon. 1567 Apr. 23 Wed. 1567 Oct. 18 Sat. 1569 Mar. 3 Thur.	Vaiśâkha       1489         Kârttika       1489         Vaiśâkha       1490         Kârttika       1490         Phâlguna       1491	4 7 14 32 8 19 0 59 3 8	2 16 12 42 7 14 0 14 1 24	3 17 13 44 — 2 39	4 57 15 20 — 3 37	5 58 16 22 9 24 1 44 4 52	t. t. 4·1 · 1·9 t.
1569 Aug. 26 F1i. 1570 Feb. 20 Mon. 1570 Aug. 15 Tues. 1571 Aug. 5 Sun. 1572 June 25 Wed.	Bhâdrapada       1492         Phôlguna       1492         Bhâdrapada I       1493         Śrâvana       1494         Âshâḍha       1495	12 11 17 16 19 48 9 56 19 54	10 36 15 29 17 59 9 16 18 47	16 37 19 4	17 55 20 32 —	13 46 19 3 21 37 10 36 21 1	10·6 t. t. 1·5 4·4
1572 Dec. 19 Fri. 1573 June 15 Mon. 1573 Dec. 8 Tues. 1574 June 4 Fri. 1574 Nov. 28 Sun.	Pausha       1495         Âshâḍba I       1496         Mârgaśirsha       1496         Jyeshtha       1497         Mârgaśirsha       1497	8 58 8 35 18 16 14 12 8 54	7 25 6 44 16 26 12 53 7 47	7 45 17 28 —	9 25 19 4 —————	10 31 10 26 20 6 15 31 10 1	10·1 t. t 6·7 4·4
1576 Apr. 13 Fri. 1576 Oct. 7 Sun. 1577 Apr. 2 Tues. 1577 Sept. 26 Thur. 1578 Mar. 23 Sun.	Vaiśâkha       1499         Aśvina       1499         Chaitra       1500         Áśvina       1500         Chaitra       1501	6 12 21 35 19 11 23 17 11 36	4 40 20 0 17 21 21 27 10 38	18 22 22 31	20 0 24 3	7 44 23 10 21 1 25 7 12 34	9.6 10.6 t. t. 3.3
1578 Sept. 15 Mon. 1580 Jan. 31 Sun. 1580 July 26 Tues. 1581 Jan. 19 Thur. 1581 July 16 Sun.	Aśvina I       1501         Mâgha       1502         Śrâvana       1503         Mâgha       1503         Śrâvaṇa I       1504	23 24 20 40 10 9 20 24 3 12	22 35 19 0 8 23 18 37 1 28	20 24 9 31 19 43 2 42	20 56 10 47 21 5 3 42	24 13 22 20 11 55 22 11 4 56	2·3 t. t. t. t.
1582 Jan. 8 Mon. 1583 May 26*Sun. 1583 Nov. 19 Tues. 1584 May 14 Thur. 1584 Nov. 7 Sat.	Pausha       1504         Jyeshtha       1506         Mârgaśirsha       1506         Jyeshtha       1507         Kârttika       1507	21 13 10 13 8 9 10 43 23 2	20 33 9 2 6 32 8 51 21 12	9 51 22 13	- - 11 35 23 51	21 53 11 24 9 46 12 35 24 52	1·5 5·1 11·2 t. t.
1585 May 3 Mon. 1585 Oct. 28 Thur. 1587 Mar. 14 Tues. 1587 Sept. 6 Wed. 1588 Mar. 2 Sat.	Vaisakha       1508         Karttika       1508         Chaitra       1510         Bhadrapada       1510         Phalgun       1510	15 25 9 5 11 23 19 25 25 27	14 11 8 16 9 41 17 54 23 39	11 1  24 45	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	16 39 9 54 13 5 20 56 27 15	5·7 2·3 t. 9·4 t.
1588 Aug. 26 Mon. 1589 Aug. 15 Fri. 1590 July 7 Tues. 1590 Dec. 30 Wed. 1591 June 26 Sat.	Bhâdrapada       1511         Bhâdrapada I       1512         Âshâḍha       1513         Pausha       1513         Âshaḍha       1514	3 15 17 38 3 12 17 17 15 32	1 25 16 43 2 20 15 44 13 42	2 28 — — — 14 44	4 2 — — 16 20	5 5 18 33 4 4 18 50 17 22	t. 2·9 2·6 9·9 t.

Oppolzer, who calculates by New Style from A. D. 1582.

A. D.	Hindu Month	Time		from Lanl en as 6 A		unrise,	Number of
A. D. Year, Month,	and	Greatest phase.	Degin-	Perio	od of curation.	End	twelfths eclipsed.
and Day.	Current Śaka Year.	[i.e. mo- ment of full moon]	ning of Eclipse.	Begin- ning.	End.	of Eclipse.	["t."= total
	["w.m.i." = with mean intercalations.]	h. m.	h. m.	h. m.	h. m.	h. m.	eclipse.]
1	2	3	4	5	6	7	8
1591 Dec. 20 Mon. 1592 June 14 Wed. 1592 Dec. 8 Fri. 1594 Apr. 24 Wed. 1594 Oct. 19 Sat.	Pausha       1514         Âshâḍha I       1515         Mârgaśîrsha       1515         Vaiśâkha       1517         Kârttika       1517	$\begin{bmatrix} 3 & 3 \\ 20 & 41 \\ 17 & 42 \\ 13 & 36 \\ 5 & 22 \end{bmatrix}$	$\begin{bmatrix} 1 & 13 \\ 19 & 13 \\ 16 & 35 \\ 12 & 8 \\ 3 & 49 \end{bmatrix}$	2 14 — — —	3 52 . — — — . —	$ \begin{array}{ccccc} 4 & 53 \\ 22 & 9 \\ 18 & 49 \\ 15 & 4 \\ 6 & 55 \end{array} $	t. 8.5 4.5 8.4 9.9
1595 Apr. 14 Mon. 1595 Oct. 8 Wed. 1596 Apr. 2 Fri. 1596 Sept. 26 Sun. 1598 Feb. 11 Sat.	Vaiśūkha       1518         Âśvina       1518         Chaitra       1519         Âśvina       1519         Mâgha       1520	$\begin{array}{cccc} 2 & 59 \\ 6 & 40 \\ 19 & 35 \\ 6 & 46 \\ 4 & 32 \end{array}$	1 8 4 50 18 28 5 49 2 54	2 9 5 52 — —	3 49 7 28 — —	4 50 8 30 20 42 7 43 6 10	t. t. 4·4 3·1 11·8
1598 Aug. 6 Sun. 1599 Jan. 31 Wed. 1599 July 27 Fri. 1600 Jan. 20 Sun. 1601 June 5 Fri.	Śrâvaņa       1521         Mâgha       1521         Śrâvaņa       1522         Mâgha       1522         Jyeshtha       1524	17 50 4 14 10 42 5 27 16 39	16 6 2 26 8 56 4 43 15 41	17 19 3 32 10 4	18 21 4 56 11 20	$\begin{bmatrix} 19 & 34 \\ 6 & 2 \\ 12 & 28 \\ 6 & 11 \\ 17 & 37 \end{bmatrix}$	t. t. t. 1 · 8
1601 Nov. 29 Sun. 1602 May 25 Tues. 1602 Nov. 19 Fri. 1603 May 14 Sat. 1603 Nov, 8 Tues.	Mârgaśîrsha       1524         Jyeshtha       1525         Mârgaśîrsha       1525         Jyeshtha       1526         Kârttika       1526	17 0 17 21 7 40 22 33 17 11	15 24 15 30 5 50 21 10 16 19	16 31 6 51 —	18 11 8 29 —	18 36 19 12 9 30 23 56 18 3	11·1 t. t. 7·4 2.6
1605 Mar. 24 Sun. 1605 Sept. 17 Tues. 1606 Mar. 14 Fri. 1606 Sept. 6 Sat. 1607 Aug. 27 Thur.	Chaitra       1528         Âśvina       1528         Chaitra I       1529         Bhâdrapada       1529         Bhâdrapada       1530	19 27 2 45 9 24 10 57 1 30	17 47 1 17 7 35 9 6 0 26	19 17 8 40 10 7	19 37 10 8 11 47	21 7 4 13 11 13 12 48 2 34	t. 8•4 t. t. 4·0
1608 July 17 Sun, 1609 Jan. 10 Tues. 1609 July 6 Thur. 1609 Dec. 30 Sat. 1610 June 26 Tues.	Śrâvaṇa       1531         Pausha       1531         Âshâḍha       1532         Pausha       1532         Âshâḍha       1533	10 34 1 42 22 26 11 46 3 10	10 3 0 10 20 37 9 56 1 36	$ \begin{array}{c cccc}  & - & \\  & - & \\  & 21 & 43 \\  & 10 & 57 \\  & - & \\ \end{array} $	23 9 12 35	11 5 3 14 24 15 13 36 4 44	$ \begin{array}{c} 0 \cdot 9 \\ 9 \cdot 8 \\ t. \\ 10 \cdot 2 \end{array} $
1610 Dec. 20 Thur. 1612 May 4 Mon. 1612 Oct. 29 Thur. 1613 Apr. 24 Sat. 1613 Oct. 18 Mon.	Pausha       1533         Vaiśâkha       1535         Kârttika       1535         Vaiśâkha       1536         Kârttika       1536	2 42 20 51 13 20 10 43 14 10	1 33 19 30 11 50 8 51 12 20	9 52 13 21	- - 11 34 14 59	3. 51 22. 12 14. 50 12. 35 16. 0	4·7 7·0 9·1 t. t.
1614 Apr. 14 Thur. 1614 Oct, 7 Fri. 1616 Feb. 22 Thur. 1616 Aug, 16 Fri. 1617 Feb. 10 Mon.	Vaiśâkha       1537         Âśvina       1537         Phâlguna       1538         Bhâdrapada       1539         Mâgha       1539	3 30 14 21 12 16 25 37 11 59	2 17 13 17 10 39 23 56 10 10	25 17 11 15	25 57 12 43	4 · 43 15 · 25 13 · 53 27 · 18 13 · 48	5·4 4·0 11·3 t. t.
1617 Aug. 6 Wed. 1618 Jan. 30 Fri. 1619 June 16 Wed. 1619 Dec. 11 Sat. 1620 June 4 Sun.	Śrâvana       1540         Mâgha       1540         Âsbâdha       1542         Mârgaśîrsha       1542         Jyeshtha       1543	18 16 13 35 23 4 1 51 23 53	16 27 12 47 22 25 0 15 22 3	17 32 — 23 5	19 0   24 41	20 5 14 23 23 43 3 27 25 43	t. 2·2 1·4 10·9 t.
1620 Nov. 29 Wed, 1621 May 25 Fri. 1621 Nov. 19 Mon. 1623 Apr. 5 Sat. 1623 Sept. 28 Sun.	Mârgasîrsha       1543         Jyeshtha       1544         Mârgasîrsha       1544         Chaitra       1546         Âsvina       1546	16 20 5 34 1 23 3 25 10 20	14 30 4 3 0 28 1 49 8 57	15 31 . ————————————————————————————————————	17 9	18 10 7 5 2 18 5 1 11 43	t. 9·4 2·9 10·9 7·4

4.70	Hindu Month	Time	messured tak	from Lan en as 6 A		unrisc,	Number of
A, D,	and	Greatest phase.	Begin-		oil of	End	twelfths
Year, Month,	Current Śaka Year.	[i.c mo- ment of	ning of Eclipse.	Begin-	End.	of Eclipse.	celipsed.
and Day.	[" $w, m, t$ " = with mean intercalations.]	h. m.	h. m.	h. m.	h. m.	h. m.	["t." = total collpse.]
1	2	3	4	5	6	7	8
1624 Mar. 24 Wcd. 1624 Sept. 16 Thur. 1625 Mar, 13 Sun. 1625 Sept. 6 Tucs. 1627 Jan. 21 Sun.	Chaitra       1547         Âśvina       1547         Chaitra I       1548         Bhâdrapada       1548         Mâgha       1549	17 12 18 43 24 12 9 26 9 59	15 22 16 51 23 46 8 14 8 26	16 25 17 52 — —	17 59 19 34 — —	19 2 20 35 24 38 10 38 11 32	t. t. 0·6 5·3 10·0
1627 July 18 Wcd. 1628 Jan. 10 Thur. 1628 July 6 Sun. 1628 Dec. 30 Tues. 1630 May 16 Sun.	Śrâvaṇa I       1550         Pausha       1550         Âshāḍha       1551         Pausha       1551         Jycshṭha       1553	5 22 20 31 9 40 11 32 4 3	3 36 18 41 8 0 10 23 2 51	4 46 19 42 9 30	5 58 21 20 9 50 —	7 8 22 21 11 20 12 41 5 15	t. t. t. 4·7 5·3
1630 Nov. 9 Tucs. 1631 May 5 Thur. 1631 Oct. 29 Sat. 1632 Apr. 24 Tucs. 1632 Oct. 17 Wed.	Kârttika       1553         Vaiśâkha       1554         Kârttika       1554         Vaiśâkha       1555         Kârttika       1555	21 21 18 17 21 55 11 16 22 4	19 53 16 25 20 4 9 56 20 54	17 25 21 5	19 9 22 45 —	22 49 20 9 23 46 12 36 23 14	8·5 t. t. 6·8 4·8
1634 Mar. 4 Tucs. 1634 Aug. 28 Thur. 1635 Feb. 21 Sat. 1635 Aug. 18 Tucs. 1636 Feb. 10 Wed.	Phâlguna       1556         Bhâdrapada       1557         Phâlguna       1557         Bhâdrapada I       1558         Mâgha       1558	10 55 9 23 19 39 1 52 21 39	18 20 7 46 17 49 0 2 20 46	18 53 1 5	20 25 2 39	21 30 11 0 21 29 3 42 22 32	10·6 11·4 t. t. 2·7
1636 Aug. 6 Sat. 1637 Dec. 21 Thur. 1638 June 16 Sat. 1638 Dec. 10 Mon. 1639 June 5 Wed.	Śrâvaņa       1559         Pausha       1560         Âshûḍha       1561         Mûrgaśirsha       1561         Jyeshṭha       1562	14 83 10 43 6 26 25 1 12 35	14 7 9 7 4 38 23 11 10 59	5 41 24 12	7 8 25 50	14 59 12 19 8 14 26 51 14 11	0.6 10.9 t. t. 11.1
1639 Nov. 30 Sat. 1641 Apr. 15 Thur. 1641 Oct. 8 Fri. 1642 Apr. 4 Mon. 1642 Sept. 28 Wed.	Mûrgaśirsha       1562         Vaisākha       1564         Âśvina       1565         Chaitra       1565         Âśvina       1565	9 41 11 20 18 0 21 55 2 45	8 46 9 47 16 41 23 5 0 53		25 41 3 36	10 36 12 53 19 19 26 45 4 37	2·9 9·9 6·6 t. t.
1643 Mar. 25 Sat. 1643 Sept. 17 Sun. 1645 Jan. 31 Fri. 1645 July 28 Mon. 1646 Jan. 21 Wed.	Chnitra       1566         Âśvina       1566         Magha       1567         Śrâvaṇa       1568         Magha       1568	7 34 17 26 18 13 12 21 5 7	6 51 16 9 16 41 10 38 3 17	 11 55 4 18		8 17 18 43 19 45 14 4 6 57	1·7 6·2 9·6 t.
1646 July 17 Fri. 1647 Jan. 10 Sun. 1648 May 26 Fri. 1648 Nov. 20 Mon. 1649 May 16 Wed.	Śrâvaņa I       1569         Pausha       1569         Jyeshtha       1571         Mârgaśirsha       1571         Jyeshtha       1572	16 11 20 25 11 17 5 29 1 53	14 27 19 16 10 13 4 2 0 1	15 40 — ;— 1 2	16 42   	17 55 21 34 12 21 6 56 3 45	t. 4·7 4·0 8·3 t.
1649 Nov. 9 Fri. 1650 May 5 Sun. 1650 Oct. 29 Tues. 1652 Mar. 15 Mon. 1652 Sept. 7 Tues.	Kârtttika       1572         Vaiśâkha       1573         Kârttika       1573         Chaitra       1575         Bhâdrapada       1575	5 41 18 57 5 55 3 18 17 23	3 50 17 30 4 42 1 47 15 49	4 51   - - - -	6 31 _ _ _ _	7 32 20 24 7 8 4 49 18 57	t. 8·2 5·4 9·5 10·3
1653 Mar. 4 Fri. 1653 Aug. 28 Sun. 1654 Feb. 21 Tues. 1654 Aug. 17 Thur. 1656 Jan. 1 Tues.	Phâlguna       1575         Bhâdrapada       1576         Phâlguna       1576         Bhâdrapada I       1577         Pausha       1578	3 5 9 40 5 33 21 46 19 36	1 15 7 50 4 35 21 0 18 1	2 17 8 51 — — —	3 53 10 29 — — — —	4 55 11 30 6 31 22 32 21 11	t. t. 3·3 2·0 10·8

4.70	Hindu Month	Time		from Lanl en as 6 A		unrise,	Number of
A.D.	and	Greatest phase.	Begin-		od of curation.	End	twelfths
Year, Month,	Current Śaka Year.	[î.e. mo- ment of	ning of Eclipse.	Begin-	End.	of Eclipse.	eclipsed. ["t."= total
and Day.	["w.m.i." = with mean intercalations.]	full moon] h. m.	h. m.	h. m.	h. m.	h. m.	eclipse.]
1	2	3	4	5	6	7	8
1656 June 26 Thur. 1656 Dec. 21 Sun. 1657 June 15 Mon. 1657 Dec. 10 Thur. 1659 Apr. 26 Tues.	Âshâḍha       1579         Pausha       1579         Âshâḍha       1580         Mûrguśirsha       1580         Vaiśākha       1582	12 55 9 42 19 36 17 56 19 1	11 10 7 52 17 55 17 0 17 33	12 20 8 53 19 17 —	13 30 10 31 19 55 —	14 40 11 32 21 17 18 52 20 29	f. t. t. 3·0 8·6
1659 Oct. 20 Thur. 1660 Apr. 15 Sun. 1660 Oct. 8 Mon. 1661 Apr. 4 Thur. 1661 Sept. 28 Sat.	Kûrttika       1582         Vaiśûkha       1583         Âśviṇa       1583         Chaitra       1584         Âśviṇa       1584	1 56 8 24 10 52 14 49 1 40	0 41 6 33 9 0 13 55 0 19	7 34 10 0 —	9 14 11 44 —	3 11 10 15 12 44 15 43 3 1	5·9 t. t. 2·8 7·0
1663 Feb. 12 Thur. 1663 Aug. 8 Sat. 1664 Feb. 1 Mon. 1664 July 27 Wed. 1665 Jan. 21 Sat.	Phâlguna       1585         Śrâvaṇa       1586         Mâgha       1586         Śrâvaṇa       1587         Mâgha       1587	2 26 19 21 13 47 22 41 5 14	0 55 17 42 11 57 20 54 4 3	12 58 22 2 —	14 36 23 20	3 57 21 0 15 37 24 28 6 25	$9 \cdot 2 \\ 11 \cdot 9 \\ t. \\ t. \\ 5 \cdot 0$
1666 June 6 Wed. 1666 Dec. 1 Sat. 1667 May 27 Mon. 1667 Nov. 20 Wed. 1668 May 16 Sat.	Jyeshtha       1589         Mârgasîrsha       1589         Jyeshtha       1590         Mârgasîrsha       1590         Jyeshtha       1591	18 25 13 35 9 23 13 33 2 32	17 34 12 10 7 32 11 41 1 0	8 33 12 42	10 13 14 24	19 16 15 0 11 14 15 25 4 4	$2.5 \\ 7.9 \\ t. \\ t. \\ 9.7$
1668 Nov 8 Sun. 1670 Mar. 26 Sat. 1670 Sept. 18 Sun. 1671 Mar. 15 Wed. 1671 Sept. 8 Fri.	Kârttika       1591         Chaitra       1593         Âśvina       1593         Chaitra       1594         Bhâdrapada       1594	13 55 10 33 25 27 10 24 17 27	12 40 9 5 23 56 8 33 15 36	9 34 16 37	11 14 18 17	15 10 12 1 26 58 12 15 19 18	5·8 8.6 9·3 t. t.
1672 Mar, 3 Sun. 1672 Aug. 28 Wed. 1674 Jan. 12 Mon. 1674 July 7 Tues. 1675 Jan. 1 Fri.	Phâlguna       1594         Bhâdrapada       1595         Pausha       1596         Âshâdha       1597         Pausha       1597	13 24 5 7 4 26 19 34 18 22	12 20 4 10 2 51 17 52 16 32	19 13 17 33	19 55 19 11	14 28 6 4 6 .1 21 16 20 12	4.0 3·1 10·6 t. t.
1675 June 27 Sun. 1675 Dec. 22 Wed. 1677 May 7 Mon. 1677 Oct. 30 Tues. 1678 Apr. 26 Fri.	Âshâḍha       1598         Pausha       1598         Vaiśâkha       1600         Kârttika       1600         Vaiśâkha       1601	2 39 2 20 2 36 9 58 15 48	0 54 1 25 1 16 8 44 13 56	2 4 — — — — 14 56	3 14 — — — 16 40	4 24 3 15 3 56 11 12 17 40	t. 2·9 6·9 5·6 t.
1678 Oct. 19 Sat. 1679 Apr. 15 Tues. 1679 Oct. 9 Thur. 1681 Feb. 22 Tues. 1681 Aug. 19 Fri.	Kârttika       1601         Vaiśâkha       1602         Âśvina       1602         Phâlguna       1603         Bhâdrapada       1604	19 11 21 52 9 59 10 32 2 28	17 19 20 48 8 35 9 3 0 54	18 19	20 3	21 3 22 56 11 23 12 1 4 2	t. 4·0 7·7 8·8 10·3
1682 Feb. 11 Sat. 1682 Aug. 8 Tues. 1683 Feb. 1 Thur. 1683 July 28 Sat. 1684 June 17 Tues.	Phâlguna       1604         Śrâvaṇa       1605         Mâgha       1605         Śrâvaṇa       1606         Âshâḍha       1607	22 19 5 20 13 54 5 53 1 33	20 28 3 31 12 42 5 17 1 5	21 29 4 35 — — —	23 9 6 5 — —	$\begin{array}{ c c c c } \hline 24 & 10 \\ 7 & 9 \\ 15 & 6 \\ 6 & 29 \\ 2 & 1 \\ \hline \end{array}$	t. t. 5·3 1·2 0.7
1684 Dec. 11 Thur. 1685 June 6 Sat. 1685 Nov. 30 Mon. 1686 May 27 Thur. 1686 Nov. 19 Fri.	Mårgaśirsha       1607         Jyeshtha       1608         Mårgaśirsha       1608         Jyeshtha       1609         Mårgaśirsha       1609	21 48 16 49 21 31 10 · 3 22 4	20 23 14 59 19 39 8 26 20 48	16 2 20 40 —	17 36 22 22 —	23 13 18 39 23 23 11 40 23 20	7·9 t. t. 11·2 6·1

	1	Time	measured	from Lan	ka mean s	unrise.	T
A.D.	Hindu Month	Greatest	tnk	en as 6 A	М.	1	Number of twelfths
Year, Month,	and	phase.	Begin- ning of		od of scuration.	End of	colipsed.
and Day.	Current Śaka Year.	[i.c. mo- ment of full moon	Eclinse	Begin- ning.	End.	Eclipse.	["t." = total
	["w. m. t." = with mean intercalations.]	h. m.	h. m.	h. m.	h. m.	h. m.	eclipse.]
11	2	3 .	4	5	в	7	8
1688 Apr. 5 Thur. 1688 Sept. 29 Sat.	Chaitra	17 38 9 39	16 16 8· 11	_	· —	19 0 11 7	7·3 8·5
1689 Mar. 25 Mon. 1689 Sept. 18 Wed.	Chaitra	17 39 25 24	$\begin{vmatrix} 15 & 47 \\ 23 & 32 \end{vmatrix}$	16 48 24 33	18 30 26 15	19 31 27 16	t. t.
1690 Mar. 14 Fri.	Chaitra	21 7	19 57			22 17	4.9
1690 Sept. 8 Mon. 1692 Jan. 23 Sat.	Bhâdrapada       1613         Môgha       1614	12 33 13 14	11 27	_		13 39 14 48	4·3 10·4
1692 July 18 Mon. 1693 Jan. 12 Thur.	Śrâvana       1615         Pausha       1615	2 13	0 37			3 49	10.9
1693 July 7 Fri.	Âshâdha 1616	9 43	7 55	2 13 9 1	$\begin{vmatrix} 3 & 53 \\ 10 & 25 \end{vmatrix}$	4 54 11 31	. t.
1694 Jan. 1 Mou, 1694 June 26 Tues.	Pausha	10 36 23 55	9 40 23 34			11 32	3.0
1695 May 18 Sat.	Ashâdha         1617           Jyeshtha         1618	10 8	8 55	_	_	24 16	0·4 5·5
1695 Nov. 10 Sun. 1696 May 6 Wed.	Kârttika       1618         Vaiśâkha       1619	1S 2 23 2	16 50 21 10	22 10	23 54	19 14 24, 51	5·2 t.
1696 Oct. 30 Fri.	Kârttika	3 32	1 40	2 40	4 24	5 24	t.
1697 Apr. 26 Mon. 1697 Oct. 19 Tues.	Vnišáklia       1620         Kårttika       1620	4 47 18 29	$\begin{bmatrix} 3 & 33 \\ 17 & 2 \end{bmatrix}$		_	6 1 19 56	5·7 8·2
1699 Mar. 5 Suu. 1699 Aug. 30 Wed.	Phâlguna       1621         Bhâdrapada       1622	18 23 9 40	17 1 8 11	<del></del> .	_	19 55 11 9	8·2 8·8
1700 Feb. 23 Fri.	Phûlguna	6 43	4 52	5 53	7 33	8 34	t.
1700 Aug. 18 Sun. 1701 Feb. 11 Tues.	Bhâdrapada	12 3 22 31	10 13 21 17	11 14	12 52	$\begin{array}{c cc} 13 & 53 \\ 23 & 45 \end{array}$	t. 5·6
1701 Aug. 7 Thur. 1702 Dec. 23 Wed.	Srâvaņa       1624         Pausha       1625	12 38 6 0	$\begin{array}{c cccc} & 11 & 45 \\ & 4 & 37 \end{array}$	<del>-</del>		13 31 7. 23	2·7 7·5
1703 June 17 Thur.	Ashûվևը	24 19	22 31	23 37	25 ]	26 7	t.
1703 Dec. 12 Sun. 1704 June 6 Tucs.	Mârgaśirsha       1626         Jycshtha       1627	5 32 17 29	3 40 15 47	$\frac{4}{17}  \frac{41}{8}$	$\begin{array}{c c} 6.23 \\ 17.50 \end{array}$	7 24 19 11	t. t.
1704 Nov. 30 Thur 1706 Apr. 16 Tucs.	Mûrgaśîrsha	$\begin{array}{cc} 6 & 16 \\ 24 & 36 \end{array}$	4 58 23 22	<u> </u>		7 34 25 50	6·5 5·7
1706 Oct. 10 Thur.	Aśvina	18 4	16 40	_		19 28	7.7
1707 Apr. 5 Sat. 1707 Sept. 30 Tues.	Chaitra       1630         Âśvina       1630	24 45 9 27	22 53 7 35	23 53 8 35	$\begin{array}{ccc} 25 & 37 \\ 10 & 19 \end{array}$	26 37 11 19	t. t.
1708 Mar. 25 Thur. 1708 Sept. 18 Sat.	Chaitra       1631         Âśvina       1631	4 42 20 2	3 26 18 50	_		5 58 21 14	$\begin{array}{c} 6\cdot 1 \\ 5\cdot 2 \end{array}$
1710 Feb. 2 Thur.	Mâgha 1632	21 55	20 22	{		23 28	10.1
1710 July 29 Sat. 1711 Jan. 23 Tues.	Śrâvaṇa       1633         Mâgha       1633	9 0	7 29 9 43	1.0 44	12 24	10 31 13 25	9·4 t.
1711 July 18 Wed. 1712 Jan. 12 Sat.	Śrâvana     . 1634       Pausha     . 1634	16 55 18 51	15 5 17 53	16 8	17 42	18 45 19 49	t. 3·2
1712 July 7 Mon.	Ashûdha 1635	7 26	6 37		_	8 15	2.3
1713 May 28 Thur. 1713 Nov. 21 Sat.	Jyeshtha.       1636         Mûrgasîrsha.       1636	17 34 2 20	16 31 1 9	_	_	18 37 3 31	3·9 5·0
1714 May 18 Tues. 1714 Nov. 10 Wed.	Jyeshtha.       1637         Kârttika.       1637	$\begin{bmatrix} 5 & 11 \\ 6 & 11 \\ 12 & 5 \end{bmatrix}$	$\begin{bmatrix} 1 & 20 \\ 4 & 20 \\ 10 & 13 \end{bmatrix}$	5 21 11 14	$\begin{bmatrix} 7 & 1 \\ 12 & 56 \end{bmatrix}$	8 2· 13 57	t. t.
1714 Nov. 10 Wea.	Vaiśâkha	12 5	10 13	14.		12 56	7·3
1715 May 7 Sat. 1715 Oct. 31 Mon. 1717 Mar. 16 Sat.	Karttika 1638	$\begin{array}{ccc} 11 & 34 \\ 3 & 3 \\ 2 & 18 \end{array}$	1 33		_	3 41	8·9 7·4
1717 Sept. 9 Mon.	Chaitra	16 57	15 34		75 40	18 20 16 50	7.5
1718 Mar. 5 Wed.	Phâlguna	14 58	13 6	14 7	15 49	10 90	ţ.

A. D.	Hindu Month	Time	measured tak	from Land en as 6 A	ka mcan s	unrise,	Number of
Year, Month,	and	Greatest phase.	Begin-		od of curation.	End	twelfths eclipsed.
and Day.	Current Śaka Year.  ["w.m.i." = with mean intercalations.]	[i.e.mo- ment of fullmoon]	Eclipse.	Begin- ning.	End.	Eclipse.	["t."= total
1	2	h. m.	h. m.	h. m.	h. m.	h. m.	eclipse.]
1718 Aug. 29 Fri.	Bhâdrapada	18 55	17 3	18 4	19 46	20 47	8 t.
1719 Feb. 23 Mon. 1719 Aug. 18 Tues. 1721 Jan. 2 Mon. 1721 June 28 Wed.	Phûlguna       1641         Bhûdrapada       1642         Pausha       1643         Âshûdha       1644	$egin{array}{cccc} 7 & 3 \\ 19 & 28 \\ 14 & 11 \\ 7 & 46 \\ \end{array}$	5 47 18 21 12 48 6 1	7 11	8 21	8 19 20 35 15 34 9 31	6·1 4·4 7·4 . t.
1721 Dec. 22 Fri. 1722 June 17 Sun. 1722 Dec. 11 Tues. 1724 Apr. 27 Mon. 1724 Oct. 21 Wed.	Pausha       1644         Ashâdha       1645         Mûrgasîrsha       1645         Vaisâkha       1647         Kârttika       1647	13 38 24 55 14 33 7 22 2 32	11 46 23 10 13 14 6 17 1 10	12 47 24 22 — —	14 29 25 28 — —	15 30 -26 40 15 52 8 27 3 54	t. t. 6.7 4.2 7.2
1725 Apr. 16 Fri. 1725 Oct. 10 Sun. 1726 Apr. 5 Tues. 1726 Sept. 30 Fri. 1728 Feb. 14 Wcd.	Vaišūkha       1648         Āśvina       1648         Chnitra       1649         Āśvina       1649         Phâlguna       1650	7 42 17 38 12 11 3 40 6 32	5 51 15 46 10 49 2 24 5 0	6 52 16 46 — —	8 32 18 30 — —	9 33 19 30 13 33 4 56 8 4	t. t. 7·3 6·0 9.7
1728 Aug. 8 Thur. 1729 Feb. 2 Sun. 1729 July 28 Mon. 1730 Jan. 23 Fri. 1730 July 18 Sat.	Śrâvaņa       1651         Mâgha.       1651         Śrâvaņa       1652         Mâgha.       1652         Śrâvaṇa.       1653	15 53 20 1 24 8 2 59 14 54	14 28 18 10 22 17 22 0 13 51	19 11 23 18 —	20 51 24 58 —	17 18 21 52 25 59 3 58 15 57	7·8 t. t. 3·4 3·9
1731 June 9 Wed. 1731 Dec. 2 Thur. 1732 May 28 Sun. 1732 Nov. 20 Mon. 1733 May 17 Thur,	Jyeshtha       1654         Mûrgasîrsha       1654         Jyeshtha       1655         Mûrgasîrsha       1655         Jyeshtha       1656	0 53 10 40 13 10 20 42 18 12	0 5 9 30 11 20 18 50 16 42	12 22 19 51	13 58 21 33	1 41 11 50 15 0 22 34 19 42	2·2 4·8 t. t. 9·1
1733 Nov. 10 Sat. 1735 Mar. 27 Thur. 1735 Sept. 20 Sat. 1736 Mar. 15 Mon. 1736 Sept. 9 Thur.	Kârttika       1656         Chaitra       1658         Âśvina       1658         Chaitra       1659         Bhâdrapada       1659	11 42 10 3 24 21 23 12 1 56	10 12 8 45 23 4 21 20 0 4	$\begin{bmatrix} - \\ - \\ 22 & 20 \\ 1 & 4 \end{bmatrix}$	24 4 2 48	13 .12 11 21 25 38 25 4 3 48	8·9 6·5 6·3 t.
1737 Mar. 5 Sat. 1737 Aug. 29 Mon. 1739 Jan. 13 Sat. 1739 July 9 Mon. 1740 Jan. 2 Wed.	Phâlguna       1659         Bhâdrapada       1660         Pausha       1661         Âshâdha       1662         Pausha       1662	15 27 2 28 22 18 15 12 21 37	14 8 1 12 20 56 13 29 19 45	14 47 20 46	15 37 22 28	16 46 3 44 23 40 16 55 23 29	6·7 6·0 7·3 t.
1740 June 28 Sat. 1740 Dec. 21 Sun. 1742 May 8 Sat. 1742 Nov. 1 Mon. 1743 Apr. 27 Wed.	Ashâdha       1663         Pausha       1663         Vaiśâkha       1665         Kârttika       1665         Vaiśâkha       1666	8 17 22 50 14 0 11 6 14 31	6 30 21 30 13 8 9 47 12 41	7 36 — 13 42	8 58  15 20	10 4 24 10 14 52 12 25 16 21	t. 6·8 2.6 6.7 t.
1743 Oct. 22 Sat. 1744 Apr. 15 Snn. 1744 Oct. 10 Wed. 1746 Feb. 24 Mon. 1746 Aug. 19 Tues.	Kârttika       1666         Vaiśâkha       1667         Âśvina       1667         Phâlguna       1668         Bhâdrapada       1669	1. 54 19 32 11 31 14 57 22 50	0 2 18 4 10 11 13 26 21 34	1 3	2 45 _ _ _	3 46 21 0 12 51 16 28 24 6	t. 8·6 6·8 9·2 6·1
1747 Feb. 14 Sat. 1747 Aug. 9 Sun. 1748 Feb. 3 Wed. 1748 July 28 Thur. 1749 June 19 Mon.	Phâlguna       1669         Śrâvaṇa       1670         Mâgha       1670         Śrâvaṇa       1671         Âshâdha       1672	4 21 7 30 11 3 22 25 8 15	2 30 5 38 10 2 21 12 7 49	3 31 6 39 — —	5 11 8 21 —	6 12 9 22 12 4 23 38 8 41	t. t. 3·6 5·4 0·6

	Hindu Month	Time		from Laúl en as 6 A		unrise,	Number of
A. D. Year, Month,	and	Greatest phase,	Begin-	Perio	od of curation.	End	twelfths celipsed.
and Day.	Current Śaka Year.	[f. c. mo- ment of	ning of Eclipse.	Begin-	End.	of Eclipse.	["t."=total
	[" $w, m, i$ ." = with mean intercalations.]	h. in.	li. m.	h. m.	h. m.	h m.	eclipse.]
1	2	3	1	5	8	7	8
1749 Dec. 12 Tues. 1750 June 8 Fri.	Mûrgasîrsha       1672         Jyeshtha       1673	19 6 20 5	17 55 18 17	19 23	20 47	20 17 21 53	5·1 t.
1750 Dec. 2 Sun. 1751 May 28 Tues.	Mårgafirsha	5 21 21 46	3 32 23 10	4 33	6 15	7 16 26 22	t. 10·9
1751 Nov. 21 Thur.	Mårgasirsha	20 20	18 58			22 0	9 · 2
1753 Apr. 17 Tacs.	Chaitra 1676	17 39	16 25			18 51	5.5
1753 Oct. 12 Fri. 1754 Apr. 7 Sun.	Áśvina	7 52 7 12	6 40 5 20	6 20	 8 4	9 4	5·2 t.
1754 Oct. 1 Tucs. 1755 Mar. 27 Thur.	Åśvinn	9 1 23 40	7 0 22 16	8 10 —	0 52	10 53 25 4	t. 7·6
1755 Sept. 20 Sat.	Bhfidrapada	9 37 6 17	8 15 4 57			10 59 7 37	7·2 6·9
1757 Feb. 4 Fri. 1757 July 30 Sat.	Mágha       1679         Śráwaya       1680         Pansha       1680	22 43 5 36	21 5 3 44	  4 31	6 25	21 21 7 24	1 i · 7 t.
1758 Jan. 24 Tues. 1758 July 20 Thur.	Pausha	15 38	13 35	14 52	16 24	17 25	t.
1759 Jan. 13 Sat. 1760 May 29 Thur.	Pausha	7 10 20 36	5 50 20 5			8 30	0 · 0 0 · 0
1760 Nov. 22 Sat. 1761 May 18 Mon.	Karttika. 1653 Vaisakha 1683	19 46 21 15	18 29 19 25	20 29	22 1	21 3 23 5	6·3 t.
1761 Nov. 12 Thur.	Kårttika 1681	10 18	8 26	0 27	11 9	12 10	t. 10·3
1762 May 8 Sat. 1762 Nov. 1 Mon.	Vnišákha       1655         Kárttika       1685	2 49 19 23	18 3			4 23 20 47 21 46	7.2 8.4
1764 Mar. 17 Sat. 1764 Sept. 10 Mon.	Philgana	23 18 6 3 12 36	21 50 4 53 10 41		13 27	7 13 14 28	4 · 9 t.
1765 Mar. 7 Thur.	Phâlgnin       1657         Bhâdrapada       1658	15 2	13 10	14 10	15 54	16 51	t.
1766 Feb. 24 Mon. 1766 Aug. 20 Wed.	Phálguna         1688           Śrávapa         1689	18 58 6 4	17 51			20 2	4·0 6·8
1768 Jan. 4 Mon. 1768 June 30 Thur.	Pausha 1690 Âshâḍha 1691	3 33 2 56	2 23	2 21	3 31	4 43 4 41	4 · Đ t.
1768 Dec. 23 Fri.	Mûrgaşîrsha1691	14 11	12 19 5 85	13 20 6 57	15 2 7 35	16 3 8 57	t. t.
1769 June 19 Mon. 1769 Dec. 13 Wed.	Jyeshtha.       1692         Margasirsha       1692         Validata       1693	7 16 5 17 1 8	3 46 0 1			6 48 2 15	9.3 4·4
1771 Apr. 29 Mon. 1771 Oct. 23 Wed.	Vaišākha	15 33	14 26		_	16 40	4.4
1772 Apr, 17 Fri. 1772 Oct. 11 Sun.	Chaitra       1695         Âśvina       1695	15 9 16 16	13 17 14 25	14 18 15 26	16 0 17 6	17 1 18 7	t. t.
1773 Apr. 7 Wed. 1773 Sept. 30 Thur.	Chaitra       1696         Âśvina       1696	7 46 16 55	6 18 15 27	_	_	9 14 18 23	8·4 8·4
1775 Feb. 15 Wed.	Mâgha 1697	14 11	12 52	_	_	15 30 7 53	6·6 10·0
1775 Aug. 11 Fri. 1776 Feb. 4 Sun. 1776 July 30 Tues.	Srlvana       1698         Mågba       1698         Śrlvana       1699	6 20 13 32 23 6	4 47 11 40 21 16	12 40 22 17	14 23 23 55	15 24 24 56	t. t.
1777 Jan. 23 Thur. 1777 July 20 Sun.	Pausha 1699 Àshāḍha 1700	15 28 11 55	14 6 11 16			16 50 12 34	7·2 1·4
1778 Dec. 4 Fri.	Margasirsha	4 32	3 15			5 49	6.2
1779 May 30 Sun. 1779 Nov. 23 Tucs.	Jycshtha       1702         Kûrttika       1702	3 55	2 8 16 59	3 15 18 0	4 35 19 42	5 42 20 43 11 39	t. t. 11·8
1780 May 18 Thur. 1780 Nov. 12 Sun.	Vaiśákha       1703         Kûrttika       1703	10 1 3 23	8 23 1 59	-		11 39 4 47	7.6

	Hindu Month	Time		from Land en as 6 A		unrise,	Number of
A. D. Year, Month,	. and	Greatest phase.	Begin-		od of curation.	End	twelfths
and Day.	Current Śaka Year.	[i.e. mo- ment of fullmoon]	ning of Eclipse.	Begin- ning.	End.	of Eclipse.	eclipsed. ["t."=total
	["w.m.i." = with mean intercalations.]	h. m.	h. m.	h. m.	h. m.	h. m.	eclipse.]
11	2	3	4	5	6	7	8
1782 Mar. 29 Fri. 1782 Sept. 21 Sat. 1783 Mar. 18 Tues. 1783 Sept. 10 Wed. 1784 Mar. 7 Sun.	Chaitra         1705           Bhūdrapada         1705           Phātguna         1705           Bhūdrapada         1706           Phātguna         1706	7 31 13 20 20 37 22 38 2 42	6 6 12 18 18 45 20 46 1 32	19 45 21 47	21 29 23 29	8 56 14 22 22 29 24 30 3 52	7·8 3·7 t. t. 4·8
1784 Aug. 30 Mon. 1786 Jan. 14 Sat. 1786 July 11 Tucs. 1787 Jan. 3 Wed. 1787 June 30 Sat.	Bhâdrapada       1707         Pausha       1708         Âshâḍha       1709         Pausha       1700         Âshâḍha       1710	13 48 12 0 9 49 22 59 13 43	12 22 10 50 8 8 21 7 11 58	9 29 22 8 13 9	10 9 23 50 14 17	15 14 13 10 11 30 24 51 15 28	8·0 4·8 t. t.
1787 Dec. 24 Mon. 1789 May 9 Sat. 1789 Nov. 2 Mon. 1790 Apr. 28 Wed. 1790 Oct. 22 Fri.	Mårgasirsha       1710         Vaisákha       1712         Kůrttika       1712         Vaisákha       1713         Ásvína       1713	14 8 6 32 23 20 23 1 23 44	12 37 7 34 22 18 21 10 21 54	22 11 22 55	23 51 24 33	15 39 9 30 24 22 24 52 25 34	9·4 3·2 3·8 t.
1791 Apr. 18 Mon. 1791 Oct. 11 Tucs. 1793 Feb. 25 Mon. 1793 Aug. 21 Wed. 1794 Feb. 14 Fri.	Chaitra         1714           Aświna         1714           Phólguna         1715           Śrávaṇa         1716           Múgha         1716	15 45 24 27 22 4 14 2 21 26	14 14 22 56 20 49 12 33 19 34	20 35	22 17	17 16 25 58 23 19 15 31 23 18	9·5 9·8 5·9 8·8 t.
1794 Aug. 11 Mon. 1795 Feb. 3 Tucs. 1795 July 31 Fri. 1796 Dec. 14 Wed. 1797 June 9 Fri.	Śrâvana       1717         Mūgha       1717         Śrâvana       1718         Mūrgašireha       1719         Jyeshtha       1720	6 33 23 44 18 56 13 22 10 35	3 41 22 21 17 58 12 6 8 51	5 42 - - 10 4	7 24 -	8 25 25 7 19 54 14 38 12 19	t. 7·5 3·2 6·1 t.
1797 Dec. 4 Mon. 1798 May 29 Tues. 1798 Nov. 23 Fri. 1800 Apr. 9 Wed. 1800 Oct. 2 Thur.	Mûrgasirsha       1720         Jyeshtha       1721         Kûrttika       1721         Chaitra       1723         Âśvina       1723	3 23 17 12 11 30 15 31 20 47	1 32 15 30 10 5 14 11 19 53	2 33 16 48 — —	4 13 17 36 —	5 14 18 54 12 55 16 51 21 41	t. t. 7·9 6·9 2·8
1801 Mar. 30 Mou. 1801 Sept. 22 Tues. 1802 Mar. 19 Fri. 1802 Sept. 11 Sat. 1804 Jan. 26 Thur.	Chaitra         1724           Bhādrapada         1724           Phālguna         1724           Bhādrapada         1725           Māgha         1726	4 29 6 21 10 21 21 39 20 23	2 37 4 30 9 8 20 8 19 14	3 37 5 31 — —	5 21 7 11 —	6 21 8 12 11 34 23 10 21 32	t. t. 5 · 4 9 · 4 4 · 7
1804 July 22 San. 1805 Jan. 15 Tues. 1805 July 11 Thur. 1806 Jan. 4 Sat. 1807 May 21 Thur.	Âshā/ha       1727         Pausha       1727         Âshā/ha       1728         Pausha       1728         Vaišākha       1730	16 42 7 41 20 8 23 5 15 53	15 6 5 52 18 20 21 34 15 9	6 53 19 25	8 35 20 51 —	18 18 9 36 21 56 24 36 16 37	10.9 t. t. 9.4 1.8
1807 Nov. 15 Snn. 1808 May 10 Tucs. 1808 Nov. 3 Thur. 1809 Apr. 29 Sat. 1809 Oct. 23 Mon.	Kårttika       1730         Vaišākha       1731         Kårttika       1731         Vaišākha       1732         Āśvina       1732	7 13 6 41 7 18 23 36 8 8	6 15 4 51 5 28 22 1 6 34	5 52 6 30	7 30 8 6 —	8 11 8 31 9 8 25 11 9 42	3·2 t. t. 10·6 10·2
1811 Mar. 10 Sun. 1811 Sept. 2 Mon. 1812 Feb. 27 Thur. 1812 Aug. 22 Sat. 1813 Feb. 15 Mon.	Phâlgana       1733         Bhâdrapada       1734         Phâlguna       1734         Śrâvaṇa       1735         Mâgha       1735	5 43 21 48 5 9 14 5 7 54	4 31 20 25 3 17 12 13 6 28	- 4 18 13 13 -	$\begin{array}{ccc} - & & \\ 6 & 0 \\ 14 & 57 \\ - & & \end{array}$	6 55 23 11 7 1 15 57 9 20	5·3 7·4 t. t. 8·0

	. Hindu Month	Time	measured tak	from Lañ en as 6 A		unrise,	Number of
A. D. Year, Month,	and	Greatest phase.	Begin- ning of		od of curation.	End of	twelfths eclipsed.
and Day.	Current Saka Year.  [" $w.m.i$ " = with mean intercalations.]	[i.e.mo- ment of fullmoon]	Eclipse.	Begin- ning.	End.	Eclipse.	["t."=total
1	2	h. m.	h. m.	h. m.	h. m.	h. m.	eclipse.]
1818 Aug. 12 Thur. 1814 Dec. 26 Mon.	Śrâvaņa       1786         Mûrgaširsha       1737	1 55 22 13	0 48 20 57			$\begin{bmatrix} 3 & 2 \\ 23 & 29 \end{bmatrix}$	4·5 6·0
1815 June 21 Wed. 1815 Dec. 16 Sat. 1816 June 9 Sun.	Jyeshtha.       1738         Mûrgasîrsha.       1739         Jyeshtha.       1739	17 11 12 1 21 20	15 31 10 10 22 31	16 57 11 11 23 41	17 25 12 51 24 56	18 51 13 52 26 6	t. t. t.
1816 Dcc. 4 Wed. 1818 Apr. 20 Mon. 1818 Oct. 14 Wed. 1819 Apr. 10 Sat. 1819 Oct. 3 Sun.	Mûrgaśirsha       1739         Chaitra       1741         Áśvina       1741         Chaitra       1742         Áśvina       1742	19 38 23 28 4 26 12 12 14 15	18 11 22 14 3 42 10 20 12 25	11 21 13 26	13 3 15 4	21 5 21 42 5 10 14 4 16 5	8·2 5·6 1·8 t.
1820 Mar. 29 Wed. 1820 Sept. 22 Fri. 1822 Feb. 6 WeJ. 1822 Aug. 2 Fri. 1823 Jan. 26 Sun.	Chaitra       1743         Bhâdrapada       1713         Mâgha       1744         Śrâvaṇa       1745         Mâgha       1745	17 47 5 37 4 45 23 31 16 28	16 29 4 3 3 37 22 1 14 36	15 37	_ _ _ 17 19	19 5 7 11 5 53 25 1 18 20	6·4 10·3 4·6 9·1 t.
1823 July 23 Wed. 1824 Jan. 16 Fri. 1824 July 11 San. 1825 May 31 Tues. 1825 Nov. 25 Fri.	Âshâḍha       1746         Pausha       1746         Âshâḍha       1747         Jyeshtha       1748         Kârttika       1748	2 35 7 56 3 19 23 12 15 11	0 45 6 24 2 34 22 54 14 17	1 48 - - -	3 22 - - - -	4 25 9 28 4 4 23 30 16 5	t. 9.6 1·9 0.3 2·8
1826 May 21 Sun. 1826 Nov. 14 Tues. 1827 May 11 Fri. 1827 Nov. 3 Sat. 1829 Mar. 20 Fri.	Vaiśâkha       1749         Kârttika       1749         Vaiśâkha       1750         Kârttika       1750         Phâlguna       1751	14 19 15 0 7 19 15 57 13 8	12 29 13 10 5 40 14 22 12 1	13 33 14 14 7 12 —	15 5 15 46 7 26	16 9 16 50 8 58 17 32 14 15	t. t. t. 10.6 4.4
1829 Sept. 13 Sun. 1830 Mar. 9 Tues. 1830 Sept. 2 Thur. 1831 Feb. 26 Sat. 1831 Aug. 23 Tues.	Bhâdrapada       1752         Phâlgana       1752         Bhâdrapada       1753         Phâlguna       1753         Śrâvaṇa       1754	5 38 12 46 21 39 16 0 9 0	4 21 10 55 19 47 14 33 7 45	11 56 20 47	13 36 22 31 —	6 55 14 37 23 31 17 27 10 15	6·3 t. t. 8·3 5·9
1833 Jan. 6 San. 1833 July 1 Mon. 1833 Dec. 26 Thur. 1834 June 21 Sat. 1834 Dec. 16 Tues.	Pausha       1755         Âshâḍha       1756         Mûrgaśirsha       1756         Jyeshṭḥa       1757         Mûrgaśirsha       1757	7 3 23 46 20 35 7 21 3 50	5 48 22 12 18 44 5 35 2 23	19 45 6 41	- 21 25 8 7 -	8 18 25 20 22 26 9 13 5 17	5.8 10.5 t. t. 8.2
1835 June 10 Wed. 1836 May 1 Sun. 1836 Oct. 24 Mon. 1837 Apr. 20 Thur. 1837 Oct. 13 Fri.	Jyeshtha       1758         Vaiśákha       1759         Âśvina       1759         Chaitra       1760         Âśvina       1760	21 38 7 12 12 18 19 45 22 20	21 3 6 5 11 39 17 54 20 30	18 55 21 32	20 35 23 8	22 13 8 19 12 57 21 36 24 10	1·1 . 4·5 1·4 . t. t.
1838 Apr. 9 Mon. 1838 Oct. 3 Wed. 1840 Feb. 17 Mon. 1840 Aug. 13 Thur. 1841 Feb. 5 Fri.	Chaitra       1761         Âśvina       1761         Mâgha       1762         Śrâvaṇa       1763         Mâgha       1763	25 1 13 43 13 6 6 22 25 11	23 38 12 6 11 59 4 59 23 19			26 24 15 20 14 13 7 45 27 3	7·5 11·4 4·5 7·4 t.
1841 Aug. 2 Mon. 1842 Jan. 26 Wed. 1842 July 22 Fri. 1843 Dec. 6 Wed. 1844 May 31 Fri.	Śrâvana       1764         Pausha       1764         Âshûdha       1765         Mûrgaśîrsha       1766         Jyeshtha:       1767	$\begin{array}{ccc} 9 & 2 \\ 16 & 46 \\ 9 & 51 \\ 23 & 14 \\ 21 & 52 \end{array}$	7 11 15 14 8 50 22 23 20 5	8 12 — — 21 11	9 52 — — 22 33	10 53 18 18 10 52 24 5 23 39	t. 9·6 3·6 2.5 t.

	Hindu Month	Time	measured tak	from Lañ en as 6 A	ka mean s	unrise,	Number of
A. D. Year, Month,	and	Greatest phase.	Begin-		od of curation.	End	twelfths eclipsed.
and Day.	Current Śaka Year.	[i.e. mo- ment of fullmoon]	ning of Eclipse.	Begin- ning.	End.	of Eclipse.	[" $t$ ." = total
	["w.m.i." = with mean intercalations.]	h. m.	h. m.	h. m.	h. m.	h. m.	eclipse.]
1	2	3	4	5	6	7	8
1844 Nov. 24 Sun. 1845 May 21 Wed. 1845 Nov. 13 Thur. 1847 Mar. 31 Wed. 1847 Sept. 24 Fri.	Kârttika       1767         Vaiśâkha       1768         Kârttika       1768         Chaitra       1770         Bhâdrapada       1770	22 49 14 58 23 51 20 29 13 36	21 0 13 15 22 14 19 29 12 24	22 4 14 33 — — —	23 34 15 23 — — —	24 38 16 41 25 28 21 29 14 48	t. t. 11·2 3·5 5·2
1848 Mar. 19 Sun. 1848 Sept. 13 Wed. 1849 Mar. 8 Thur. 1849 Sept. 2 Sun. 1851 Jan. 17 Fri.	Phâlguna       1770         Bhâdrapada       1771         Phâlguna       1771         Bhâdrapada       1772         Pausha       1773	20 15 5 25 23 59 16 15 15 55	18 25 3 33 22 29 14 53 14 41	19 26 4 34 — — —	21 4 6 16 — —	22 5 7 17 25 29 17 37 17 9	t. t. 9·1 7·2 5·7
1851 July 13 Sun. 1852 Jan. 7 Wed. 1852 July 1 Thur. 1852 Dec. 26 Sun. 1853 June 21 Tues.	Âshâdha       1774         Pausha       1774         Âshâdha       1775         Mûrgaśirsha       1775         Jyeshtha       1776	6 24 5 16 14 29 12 5 5 5	4 55 3 25 12 39 10 38 4 12	4 26 13 41 —	6 6 15 17	7 53 7 7 16 19 13 32 5 58	8·7 t. t. 8·3 2·7
1854 May 12 Fri. 1854 Nov. 4 Sat. 1855 May 2 Wed. 1855 Oct. 25 Thur. 1856 Apr. 20 Sun.	Vaiśákha       1777         Kárttika       1777         Vaiśákha       1778         Ásvina       1778         Chaitra       1779	14 52 20 16 3 9 6 34 8 11	13 54 19 46 1 19 4 44 6 42	2 20 5 48	3 58 7 20 —	15 50 20 46 4 59 8 24 9 40	3·2 0·8 t. t. 8·7
1856 Oct. 13 Mon. 1858 Feb. 27 Sat. 1858 Aug. 24 Tues. 1859 Feb. 17 Thur. 1859 Aug. 13 Sat.	Âśvina       1779         Phâlguna       1780         Śrâvaṇa       1781         Mâgha       1781         Śrâvaṇa       1782	21 57 21 19 13 22 9 48 15 35	20 18 20 14 12 7 7 57 13 43	21 50 — 8 58 14 43	22 4 — 10 38 16 27	23 36 22 24 14 37 11 39 17 27	t. 4·2 5·8 t.
1860 Feb. 6 Mon. 1860 Aug. 1 Wed. 1861 Dec. 17 Tues. 1862 June 12 Thur. 1862 Dec. 6 Sat.	Mûgha       1782         Śrûvaṇa       1783         Mûrgaśirsha       1784         Jyeshtha       1784         Mûrgaśirsha       1785	25 31 16 27 7 17 5 22 6 43	23 59 15 13 6 29 3 38 4 54	- - 4 50 5 59	- - 5 54 7 27	27 3 17 41 8 5 7 6 8 32	9·7 5·6 2·2 t. t.
1863 June 1 Mon. 1863 Nov. 25 Wed. 1865 Apr. 11 Tues. 1865 Oct. 4 Wel. 1866 Mar. 31 Sat.	Jyeshtha       1786         Karttika       1786         Chaitra       1788         Âśvina       1788         Chaitra       1789	22 27 8 0 3 39 21 45 3 36	20 42 6 22 2 48 20 40 1 46	21 52 — — 2 48	23 2 — — 4 24	24 12 9 38 4 30 22 50 5 26	t. 11·6 2·5 4·2 t.
1866 Sept. 24 Mon. 1867 Mar. 20 Wed. 1867 Sept. 13 Fri. 1869 Jau. 27 Wed. 1869 July 23 Fri.	Bhâdrapada       1789         Phâlgura       1789         Bhâdrapada       1790         Mâgha       1791         Âshâdha       1792	13 10 7 52 23 29 24 44 13 7	11 20 6 20 22 1 23 30 11 47	12 21	13 59 — — — —	15 0 9 24 24 57 25 58 14 27	t. 9·8 8·4 5·6 6·8
1870 Jan. 17 Mon. 1870 July 12 Tues. 1871 Jan. 6 Fri. 1871 July 2 Sun. 1872 May 22 Wed.	Pausha       1792         Âshâḍha       1793         Pausha       1793         Âshâḍha       1794         Vaiśākha       1795	13 50 21 37 20 19 12 27 22 23	11 59 19 46 18 51 11 22 21 41	13 0 20 47 — —	14 40 22 27 — —	15 41 23 28 21 47 13 32 23 5	t. t. 8·5 4·2 1·6
1872 Nov. 15 Fri, 1873 May 12 Mon. 1873 Nov. 4 Tues. 1874 May 1 Fri. 1874 Oct. 25 Sun.	Kûrttika.       1795         Vaiśâkha       1796         Kûrttika.       1796         Vaiśâkha       1797         Ásvina       1797	4 24 10 23 14 55 15 8 6 15	4 3 8 34 13 6 13 35 4 33	9 38 14 10 — 5 54	11 8 15 40 — 6 36	4 45 12 12 16 44 16 41 7 57	0·4 t. t. 10·0 t.

# TABLE E.

J.D.	Hindu Month	Time	measured tak	from Lañ en as 6 A	ka mean s . M.	unrise,	Number of
A. D. Year, Month,	and	Greatest phase.	Begin-		od of scuration.	End	twelfths eclipsed.
and Day.	Current Śaka Year.	[i.e. mo- ment of full moon]	ning of Eclipse.	Begin- ning.	End.	of Eclipse.	["t."=total
	["w.m.i." = with mean intercalations.]	h. m.	h. m.	h. m.	h. m.	h. m.	eclipse.]
<u> </u>	2	3	4	5	8	7	8
1876 Mar. 10 Fri. 1876 Sept. 3 Sun. 1877 Feb. 27 Tues. 1877 Aug. 23 Thur. 1878 Feb. 17 Sun.	Phâlguna       1798         Bhâdrapada       1799         Phâlguna       1799         Śrâvaṇa       1800         Mâgha       1800	5 24 20 26 18 22 22 13 10 12	4 22 19 22 16 31 20 22 8 38	$\begin{bmatrix} - \\ 17 & 32 \\ 21 & 23 \\ - \end{bmatrix}$	19 12 23 3	6, 26 -21 30 20 13 24 4 11 46	3·8 4·0 t. t. 10·3
1878 Aug. 12 Mon. 1879 Dec. 28 Sun. 1880 June 22 Tues. 1880 Dec. 16 Thur. 1881 June 12 Sun.	Śrâvana       1801         Mârgaśirsha       1802         Jyeshtha       1803         Mârgaśirsha       1803         Jyeshtha       1804	23 10 15 25 12 52 14 42 5 57	21 47 14 40 11 10 12 54 4 9	12 31 13 59 5 15	$\begin{bmatrix} - \\ 13 & 13 \\ 15 & 25 \\ 6 & 39 \end{bmatrix}$	24 33 16 10 14 34 16 30 7 45	7·4 1·9 t. t. t.
1881 Dec, 5 Mon. 1883 Apr. 22 Sun. 1883 Oct. 16 Tues. 1884 Apr. 10 Wed. 1884 Oct. 4 Sat.	Mârgaśirsha       1804         Chaitra       1806         Âśvina       1806         Chaitra       1807         Âśvina       1807	16 12 10 40 5 57 10 50 21 6	14 33 10 5 4 59 9 1 19 16	16 12 — 10 5 20 18	16 12 — 11 35 21 54	17 51 11 15 6 55 12 39 22 56	t. 1·1 3·3 t. t.
1885 Mar. 30 Mon. 1885 Sept. 24 Thur. 1887 Feb. 8 Tues. 1887 Aug. 3 Wed. 1888 Jan. 28 Sat.	Chaitra         1808           Bhâdrapada         1808           Mâgha         1809           Śrâvaṇa         1810           Mâgha         1810	15 39 6 52 9 25 19 50 22 21	14 3 5 20 8 13 18 39 20 30	21 31	23 11	17 15 8 24 10 37 21 1 24 12	11·0 9·6 5·3 5·1 t.
1888 July 23 Mon. 1889 Jan. 17 Thur. 1889 July 12 Fri. 1890 June 3 Tnes. 1890 Nov. 26 Wed.	Âshûdha       1811         Pausha       1811         Âshûdha       1812         Jyeshtha       1813         Kûrttika       1813	4 49 4 33 19 55 5 49 12 36	2 57 3 5 18 40 5 38 12 25	3 57 — — —	5 41 — — — —	6 41 6 1 21 10 6 0 12 47	t. 8·4 5·9 0·1 0·1
1891 May 23 Sat. 1891 Nov. 15 Sun. 1892 May 11 Wed. 1892 Nov. 4 Fri. 1894 Mar. 21 Wed.	Vaiśâkha       1814         Kârttika       1814         Vaiśâkha       1815         Kârttika       1815         Phâlguna       1816	17 29 23 21 21 56 14 46 13 24	15 42 21 32 20 18 13 4 12 27	16 50 22 38 — 14 22	18 8 24 4 — 15 10	19 16 25 10 23 34 16 28 14 21	t. t. 11·6 t. 3·1
1894 Sept. 15 Sat. 1895 Mar. 11 Mon. 1895 Sept. 4 Wed. 1896 Feb. 28 Fri. 1896 Aug. 23 Sun.	Bhâdrapada       1817         Phâlguna       1817         Bhâdrapada       1818         Phâlguna       1818         Śrâvaṇa       1819	3 30 2 45 4 59 18 48 6 0	2 36 0 54 3 9 17 13 4 30	1 55 4 11 —	3 35 5 47 —	4 24 4 36 6 49 20 23 7 30	2·8 t. t. 10·7 9·0
1898 Jan. 7 Fri. 1898 July 3 Sun. 1898 Dec. 27 Tues. 1899 June 23 Fri. 1899 Dec. 16 Sat.	Pausha       1820         Âshûdha       1821         Mûrgaśirsha       1821         Jyeshtha       1822         Mûrgaśirsha       1822	23 33 20 20 22 41 13 20 24 28	22 49 18 43 20 53 11 30 22 48	21 59 12 33 24 18	23 23 14 7 24 38	24 17 21 57 24 29 15 10 26 8	1·8 11·2 t. t. t.
1900 June 13 Wed.	Jyeshṭha 1823	2 27	2 12			2 42	0.5

TABLE F.

### MEAN TO APPARENT TIME CORRECTION-TABLE.

OLD STYLE.										
Day.	A. D. 200	A. D. 400	A. D. 600	A. D. 800	A. D. 1000	A. D. 1200	A. D. 1400	A. D. 1600	A. D. 1700 to Sept. 2nd. 1752	NEW STYLE. Since Sept. 14 A. D. 1752
January -1	ın. — 12	m. — 11	m. — 10	m. — 10	m. 9	— 9	m. — 9	m. — 9	m. 8	m. — 4
" 6 " 11	— 14 — 16	— 13 — 15	— 13 — 15	-12 $-14$	— 11 — 13	- 11 13	. — 11 — 13	11 12	-10 $-12$	6. 8.
" 16 " 21	- 18 19	— 16 — 18	-16 - 17	-16 $-17$	— 15 — 16	· — 14 — 15	14 15	— 13 — 14	— 13 — 14	— 10. — 12.
" 26 " 31	— 19 — 20	— 19 — 19	18 18	— 18 — 18	-17 $-17$	— ·16 — 16	— 15 — 16	14 15	— 14 — 14	. — 13 — 14
February 5	— 20 — 19	— 19 — 18	— 18 — 18	- 17 - 17	— 16 — 16	— 16 — 16	— 15 — 15	— 15 — 14	— 14 — 13	— 14 — 14
, 15 , 20	$\begin{vmatrix} -13 \\ -18 \\ -17 \end{vmatrix}$	-16 $-17$ $-16$	-10 $-17$ $-16$	- 16 15	-15 $-15$	— 15 — 14	— 14 — 13	-13 $-13$	-13 $-12$	. — 14. . — 14
,, 25	— 16	<u> 15</u>	<b></b> ·14	<b>— 14</b>	— 13	<b>— 12</b>	_ 12	- 12	- 1.1	— 13
March 2	$ \begin{array}{c cccc}  & -14 \\  & -12 \\  & -9 \\  & -7 \end{array} $	-13 $-11$ $-9$ $-7$	$egin{array}{cccc} & -13 \\ & -11 \\ & -9 \\ & -7 \end{array}$	$     \begin{array}{r}       -12 \\       -10 \\       -9 \\       -7   \end{array} $	$ \begin{array}{c c} -12 \\ -10 \\ -8 \\ -6 \end{array} $	$     \begin{array}{rrr}        11 \\        9 \\        8 \\        6     \end{array} $	— 11 — 9 — 7 — 5	-10 $-8$ $-7$ $-5$	$ \begin{vmatrix}  -10 \\  -8 \\  -7 \\  -5 \end{vmatrix} $	- 13 - 11 - 10 - 8
,, 22 ,, 27	— 5 — 3	5 3	— 5 — 3	— 5 — 3	_ 5 _ 3	- 4 - 3	— 4 — 2	- 4 - 2	— 4 — 2	— 7 — 5
April 1	0 + 2 + 4 + 6 + 7 + 9	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c cccc}  & - & 1 \\  & + & 1 \\  & + & 3 \\  & + & 5 \\  & + & 6 \\  & + & 7 \end{array} $	$ \begin{array}{ccccc}  & - & 1 \\  & + & 1 \\  & + & 2 \\  & + & 4 \\  & + & 5 \\  & + & 6 \end{array} $	$ \begin{array}{c c} - & 1 \\ + & 1 \\ + & 2 \\ + & 3 \\ + & 4 \\ + & 5 \end{array} $	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	$ \begin{array}{ccccc}  & - & 1 & & & \\  & & 0 & & \\  & + & 2 & & \\  & + & 3 & & \\  & + & 4 & & \\  & + & 4 & & \\ \end{array} $	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c c}  & 0 \\  + 1 \\  + 1 \\  + 2 \\  + 3 \\  + 4 \end{array} $	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$
May 1	$   \begin{array}{c}     +10 \\     +10 \\     +9 \\     +8 \\     +7   \end{array} $	+ 8 + 9 + 8 + 8 + 7 + 6	+ 8 + 8 + 8 + 7 + 7 + 6 + 6	$\begin{array}{c} + & 7 \\ + & 7 \\ + & 7 \\ + & 7 \\ + & 6 \\ + & 6 \\ + & 5 \end{array}$	+ 6 + 6 + 6 + 6 + 6 + 5 + 4	+ 5 + 5 + 5 + 5 + 5 + 4 + 3	+ + + + + + + + + + + + + + + + + + +	+ 4 + 4 + 4 + 3 + 3 + 2 + 1	+ 4 + 4 + 3 + 3 + 2 + 1	+ 3 + 3 + 4 + 3 + 3 + 3
June 5	$\begin{vmatrix} + & 6 \\ + & 4 \\ + & 2 \\ & 0 \\ - & 2 \\ - & 3 \end{vmatrix}$	+ 5 + 4 + 2 0 - 2 - 3	$   \begin{array}{c}     + 5 \\     + 3 \\     + 1 \\     0 \\     - 2 \\     - 3   \end{array} $	$\begin{array}{c} + & 4 \\ + & 2 \\ + & 1 \\ & & 0 \\ - & 2 \\ - & 3 \end{array}$	$     \begin{array}{r}       + 3 \\       + 2 \\       0 \\       - 1 \\       - 2 \\       - 3     \end{array} $	$     \begin{array}{r}       + 2 \\       + 1 \\       0 \\       - 1 \\       - 2 \\       - 3     \end{array} $	+ 1 . 0 . 1 . 2 . 3 . 4	0 - 1 - 2 - 3 - 3 - 4	0 - 1 - 2 - 3 - 3 - 4	$\begin{array}{cccccccccccccccccccccccccccccccccccc$

#### THE INDIAN CALENDAR.

## TABLE F.

#### MEAN TO APPARENT TIME CORRECTION-TABLE.

OLD STYLE. NEW STYLE.											
Day.	A. D. 200	А. D. 400	A. D. 600	A. D. 800	A. D. 1000	Λ. D. 1200	A. D. 1400	Л. D. 1600	A. D. 1700 to Sept. 2nd. 1752	Since Sept. 14 A. D. 1752	
July 5	m 5 - 6 - 7 - 8 - 8 - 8	m.  - 5 - 6 - 7 - 7 - 7	m 5 - 6 - 6 - 7 - 7 - 7	m.  4  5  6  6  6	m.  - 4 - 5 - 5 - 6 - 6 - 6	m.  4  5  6  6  5	m.  4  5  6  6  5  5  6  6  5  7 6 7 6 7 7 7 7	m.  - 4 - 5 - 5 - 6 - 6 - 5	m.  - 4 - 5 - 6 - 6 - 6 - 5	m. — 4 — 5 — 5 — 6 — 6	
August 4	- 7 - 7 - 6 - 4 - 2	- 6 - 6 - 5 - 4 - 2	- 6 - 5 - 4 - 3 - 1	- 5 - 5 - 4 - 2 - 1 + 1	- 5 - 4 - 3' - 2 0 + 1	- 5 - 4 - 3 - 2 - 0 + 2	- 4 - 4 - 3 - 1 + 1 + 2	- 4 - 3 - 2 - 1 + 1 + 2	- 4 - 3 - 2 0 + 1 + 3	6 5 4 3 2 1	
September 3	$\begin{array}{c} + 2 \\ + 4 \\ + 6 \\ + 8 \\ + 10 \\ + 12 \end{array}$	+ 2 + 4 + 6 + 8 + 10 + 12	+ 2 + 4 + 6 + 8 + 10 + 12	+ 2 + 4 + 6 + 8 + 10 + 12	+ 3 + 5 + 6 + 8 + 10 + 12	+ 3 + 5 + 7 + 8 + 10 + 12	+ 3 + 5 + 7 + 9 + 11 + 12	+ 4 + 6 + 7 + 9 + 11 + 12	+ 4 + 6 + 8 + 9 + 11 + 12	0 + 2 + 4 + 6 + 8 + 10	
October 5	+ 14 + 16 + 17 + 18 + 18 + 19	+ 13 + 15 + 17 + 18 + 18 + 18	+ 13 + 15 + 16 + 17 + 17 + 18	+ 13 + 15 + 16 + 16 + 17 + 17	+ 13 + 15 + 16 + 16 + 16 + 17	+ 13 + 15 + 16 + 16 + 16 + 16	+ 13 + 15 + 16 + 16 + 16 + 16	+ 13 + 15 + 16 + 16 + 16 + 16	+ 14 + 15 + 16 + 16 + 16 + 16	+ 11 $+ 12$ $+ 13$ $+ 14$ $+ 15$ $+ 16$	
November 2	+ 19 + 18 + 17 + 15 + 13 + 10	+ 18 + 17 + 16 + 14 + 12 + 9	+ 17 + 16 + 15 + 14 + 12 + 9	+ 17 + 16 + 15 + 13 + 11 + 9	+ 16 + 15 + 14 + 13 + 11 + 9	+ 16 + 15 + 14 + 12 + 10 + 8	+ 15 + 15 + 13 + 12 + 10 + 8	+ 15 + 14 + 13 + 12 + 10 + 8	+ 15 + 14 + 13 + 11 + 9 + 7	+ 16 $+ 16$ $+ 16$ $+ 15$ $+ 13$ $+ 12$	
December 2	$ \begin{array}{c cccc} + & 7 \\ + & 4 \\ + & 1 \\ - & 2 \\ - & 6 \\ - & 9 \\ - & 12 \\ - & 14 \end{array} $	+ 7 + 4 + 1 - 2 - 5 - 8 - 11 - 13	+ 7 + 4 + 1 - 2 - 5 - 8 - 10 - 12	+ 7 + 4 + 1 - 2 - 5 - 7 - 9 - 12	+ 7 + 4 + 1 - 2 - 5 - 7 - 9 - 11	+ 6 + 4 + 1 - 2 - 5 - 7 - 9 - 11	+ 6 + 3 + 1 - 2 - 5 - 7 - 9 - 11	+ 6 + 3 + 1 - 2 - 5 - 7 - 9 - 11	+ 6 + 3 0 - 2 - 5 - 8 - 9 - 10	+ 10 + 8 + 6 + 3 + 1 - 1 - 3 - 6	

## TABLE G.

#### APPARENT TIME OF THE SUN'S RISING AND SETTING.

N.B. On and after each date entered herein use the column to which it refers. The arrows indicate the order

N.B. On and a)	ster each	ter each date entered herein use the column to which it refers. The arrows indicate the order.												
					N	ORTI	H DEC	CLIN	ATIO	N.				
**	00	>	2	0	40	5	69	0	. 80	0	99	0	10	00
Latitude.	Mar. 17 <b>←</b> ≪ S			3 ≫— <b>&gt;</b> Sept.15	Mar. 28	8 <del>&gt;&gt; &gt;</del> Sept. 10	Apr. 1	≫→ Sept. 5	Apr. 8	⇒ > Sept. 1		2 <del>&gt;&gt; -&gt;</del> Aug. 29	Apr. 14	4 <del>&gt;&gt;&gt; →</del> Aug. 26
	rises	scts	rises	sets	rises	sets	rises	sets	riscs	sets	rises	sets	rises	sets
	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.
0°	6 0	6 0	6 0	6 0	6 0	6 0	6 0	6 0	6 0	6 0	6 0	6 0	6 0	6 0
20	6 0	6 0	6 0	6 0	6 0	6 0	6 0	6 0	5 59	6 1	5 59	6 1	5 59	6 1
4°	6 0	6 0	6 0	6 0	5 59	6 1	5 59	6 1	5 58	6 2	5 58	6 2	5 57	6 3
6°	6 0	6 0	6 0	6 0	5 58	6 2	5 58	6 2	5 57	6 3	5 57	6 3	5 56	6 4
80	6 0	6 0	5 59	6 1	5 58	6 2	5. 24	6 3	5 56	6 4	5 55	6 5	5 55	6 5
100	6 0	6 0	5 59	6 1	5 57	$\begin{bmatrix} 6 & 3 \\ c & 3 \end{bmatrix}$	5 56	6 4	5 54	6 6	5 54	6 6	5 53	6 7
120	6 0	6 0	5 58	6 2	5 57	6 3	5 55	6 5	5 53	$\begin{bmatrix} 6 & 7 \\ 6 & 8 \end{bmatrix}$	5 53	6 7	5 52	6 8
14°	6 0	6 0	5 58 5 58	6 2	5 55	6 4	5 53	6 6	5 52 5 51	6 8	5 51	6 9 6 10	5 51 5 48	6 12
18°	6 0	6 0	5 58	6 2	5 55	6 5	5 52	6 8	5 50	6 10	5 48	$\begin{bmatrix} 6 & 10 \\ 6 & 12 \end{bmatrix}$	5 47	6 13
10-		(	000	" "	1		" "		0 55	0	0 10	0	J =1	1010
20°	6 0	6 0	5 57	6 3	5 54	6 6	5 51	6 9	5 48	6 12	5 47	6 13	5 45	6 15
21°	6 0	6 0	5 57	6 .3	5 54	6 6	5 51	6 9	5 48	6 12	5 46	6 14	5 44	6 16
220	6 0	6 0	5 57	6 3	5 54	6 6	5 50	6 10	5 47	6 13	5 45	6 15	5 44	6 16
23°	6 0	6 0	5 57	6 3	5 53	6 7	5 50	6 10	5 46	6 14	5 45	6 15	5 43	6 17
24°	6 0	6 0	5 57	6 3	5 53	6 7	5 49	6 11	5 46	6 14	5 44	6 16	5 42	6 18
25°	6 0	6 0	5 56	6 4	5 53	6 7	5 49	6 11	5 45	6 15	5 43	6 17	5 41	6 19
26°	6 0	6 0	5 56	6 4	5 52	6 8	5 48	6 12	5 44	6 16	5 42	6 18	5 40	6 20
27°	6 0	6 0	5 56	6 4	5 52	6 8	5 48	6 12	5 44	6 16	5 41	6 19	5 39	6 21
28° 29°	6 0	6 0	5 56	6 4	5 51	6 9	5 47	6 13	5 43	6 17	5 41	6 19	5 38	6 22
29°	6 0	6 0	5 56	6 4	5 51	6 9	5 47	6 13	5 42	6 18	5 40	6 20	5 38	6 22
30°	6 0	6 0	5 55	6 5	5 51	6 9	5 46	6 14	5 41	6 19	5 39	6 21	5 37	6 23
31°	6 0	6 0	5 55	6 5	5 50	6 10	5 46	6 14	5 41	6 19	5 38	6 22	5 36	6 24
32°	6 0	6 0	5 55	6 5	5 50	6 10	5 45	6 15	5 40	6 20	5 37	6 23	5 35	6 25
33°	6 0	6 0	5 55	6 5	5 50	6 10	5 44	6 16	5 39	1	5 36	6 24	5 34	6 26
340	6 0	6 0	5 55	6 5	5 49	6 11	5 44	6 16	5 38	6 22	5 35	6 25	5 33	6 27
35°	6 0	6 0	5 55	6 5	5 49	6 11	5 43	6 17	5 37	6 23	5 35	6 25	5 32	6 28
360	6 0	6 0	5 55	6 5	5 48	6 12	5 42	6 18	5 37	6 23	5 34	6 26	5 31	6 29
370	6 0	6 0	5 55	6 5	5 48	6 12	5 42	6 18	5 36	6 24	5 33	6 27	5 29	6 31
38°	6 0	6 0	5 55	6 5	5 47	6 13	5 41	6 19	5 35	6 25	5 32 5 31	6 28	5 28 5 27	6 32
ου·	6 0	6 0	5 55	6 5	5 47	6 13	5 40	6 20	<del>`                                    </del>	6 26	1	<del> </del>	<del>`</del>	·
¥	sets	rises	sets	rises	sets	riscs	sets	rises	sets	rises	sets	rises	sets	rises
<b>/</b>		0 <del>&gt;&gt;&gt;</del> Mar. 17	Sept.2	6 <del>≫ →</del> Mar. 13	Oct. 1	»→ Mar. 8	Oct. 6	»→ Mar. 3	Oct. 17	1 <del>&gt;&gt;&gt; &gt;</del> Feb. 27		5 <del>&gt;&gt;&gt; →</del> Feb. 24		8 <del>≫ →</del> Feb. 21
	0	00 20				ľo	69		80 90			10°.		
		SOUTH DECLINATION.												ľ

### THE INDIAN CALENDAR.

# TABLE G. (CONTINUED.)

#### APPARENT TIME OF THE SUN'S RISING AND SETTING.

N.B. On and after each date entered herein use the column to which it refers. The arrows indicate the order.

	ter euon	er each date entered herein use the column to which it refers. The arrows indicate the order.  NORTH DECLINATION.												
,	110	,	• 12	0	13	0	14	0	15	0	16	0	1	7°
Latitude. ≫→	A <sub>Γ</sub> r. 17 <b>«</b> A	»→. ug. 23	Apr. 20 <b>≺</b> —≪ 2	\ <del>&gt;&gt;&gt; \</del> Aug. 20	Apr. 23	\ <del>&gt;&gt;&gt; →</del> Aug. 17	Apr. 26	S ≫ → Aug. 14	Apr. 29	\ <del>}}-&gt;</del> Aug. 10	May 3	<del>≫&gt;</del> Aug. 7	May 6	<del>≫→</del> Aug. 3
	rises	sets	rises	sets	rises	se!s	rises	scls	rises	sets	rises	sets	rises	sets
	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.
0°	6 0	6 0	6 0	6 0	6 0	6 0	6 0	6 0	6 0	6 0	6 0	6 0	6 0	6 0
2°	5 59	6 1	5 58	6 2	5 58	6 2	5 58	6 2	5 58	6 2	5 58	6 2	5 58	6 2
4°	5 57	6 3	5 57	6 3	5 56	6 4	5 56	6 4	5 56	6 4	5 56	6 4	5 55	6 5
6°	5 56	6 4	5 55	6 5	5 55	6 5	5 54	6 6	5 54	6 6	5 53	6 7	5 53	6 7
8°	5 54	6 6	5 53	6 7	5 53	6 7	5 52	6 8	5 51	6 9	5 51	6 9	5 50	.6 10
.00	5 52	6 8	5 52	6 8	5 51	6 9	5 50	6 10	5 49	6 11	5 49	6 11	5 48	6 12
2°	5 51	6 9	5 50	6 10	5 49	6 11	5 48	6 12	5 47	6 13	5 46	6 14	5 45	6 15
40	5 50	6 10	5 48	6 12	5 48	6 12	5 46	6 14	5 45	6 15	5 44	6 16	5 43	.6 17
.6°	5 47	6 13	5 46	6 14	5 45	6 15	5 44	6 16	5 42	6 18	5 41	6 19	5 40	6 20
8°	5 46	6 14	5 44	6 16	5 43	6 17	5 41	6 19	5 40	6 20	5 39	6 21	5 37	.6 23
20°	5 44	6 16	5 42	6 18	5 41	6 19	5 39	6 21	5 38	6 22	5 36	6 24	5 34	6 26
21°	5 43	6 17	5 41	6 19	5 40	6 20	5 38	6 22	5 .36	6 24	5 35	6 25	5 33	6 27
22°	5 42	6 18	5 40	6 20	5 39	6 21	5 37	6 23	5 35	6 25	5 33	6 27	5 32	.6 28
23°	5 41	6 19	5 39	6 21	5 38	6 22	5 36	6 24	5 34	6 26	5 32	6 28	5 30	6 30
24°	5 40	6 20	5 38	6 22	5 36	6 24	5 34	6 26	5 33	6 27	5 31	6 29	5 29	6 31
25°	5 39	6 21	5 37	6 23	5 35	6 25	5 33	6 27	5 31	6 29	5 29	6 31	5 27	6 33
26°	5 38	6 22	5 36	6 24	5 34	6 26	5 32	6 28	5 30	6 30	5 28	6 32	5 26	6 34
27°	5 37	6 23	5 35	6 25	5 33	6 27	5 31	6 29	5 29	6 31	5 26	6 34	5 24	6 36
28°	5 36	6 24	5 34	6 26	5 32	6 28	5 30	6 30	5 27	6 33	5 25	.6 35	5 23	6 37
29°	5 35	6 25	5 33	6 27	5 31	6 29	5 28	6 32	5 26	6 34	5 23	6 37	5 21	.6 39
30°	5 34	6 26	5 32	6 28	5 29	6 31	5 27	6 33	5 24	6 36	5 22	6 38	5.19	6 41
31°	5 33	6 27	5 31	6 29	5 28	6 32	5 26	6 34	5 23	6 37	5 20	6 40	5 18	6 42
32°	5 32	6 28	5 29	6 31	5 27	6 33	5 24	6 36	5 21	6 39	5 19	6 41	5 16	.6 44
33°	5 31	6 29	5 28	6 32	5 26	6 34	5 23	6 37	5 20	6 40	5 17	6 43	5 14	6 46
340	5 30	6 30	5 27	6 33	5 24	6 36	5 21	6 39	5 18	6 42	5 15	6 45	.5 12	.6 48
350	5 29	6 31	5 26	6 34	5 23	6 37	5 20	6 40	5 17	6 43	5 14	6,46	5 11	6 49
36°	5 28	6 32	5 24	6 36	5 21	6 39	5 18	6 42	5 15	6 45	5 12	6 48	.5 9	6 51
37°	5 26	6 34	5 23	6 37	5 20	6 40	5 17	6 43	5 13	6 47	5 10	6 50	5 7	6 53 6 55
38°	5 25	6 35	5 22	6 38	5 18	6 42	5 15	6 45	5 12	6 48	5 8	6 52	5 5	6 57
390	5 24     sets	6 36	scts	6 40	5 17 sets	6 43	5 13     sets	6 47	5 10	6 50	5 6	6 54	sets	rises
- <del>&gt;&gt;&gt;</del>	<u> </u>		<u> </u>	<u> </u>		<u> </u>	]	<u> </u>	<u></u>	<u> </u>	ļ <u></u>	<u> </u>	<u> </u>	
· · · · · · · · · · · · · · · · · · ·					000.20					Nov. 5 ⇒ → ≪ Feb. 3		Nov. 8 ≫ → 3 4 ≪ Jan. 31		
	; 11	0	1:	20	18	30 -	14° · 15°				160 170			70
		SOUTH DECLINATION.												

## ECLIPSES OF THE MOON IN INDIA.

# TABLE G. (CONTINUED.)

### APPARENT TIME OF THE SUN'S RISING AND SETTING.

N.B. On and after each date entered herein use the column to which it refers. The arrows indicate the order.

			NORTH DECLINATION.												
		18	30	19	۰ مر	20	)0	· 21	0	22	90	23	30 .	- 23	1/2°
	Latitude.	•		May 14	. <del>&gt;&gt; →</del> July 26	May 18	Tul., 01		} }} }->	May 28	} »>>>	June 5	» <del>. →</del>	June 1	1 >>
l.	<b>←</b> ─⋘					₩,			July 15		July 5		June 29		
		rises	sets	rises	sets	rises	sets	rises	sets	rises	sets	rises	sets	rises	sets
		h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h, m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.
0°. 2°		5 58	6 0	6 0 5 58	6 0	6 ·0 5 58	6 0	6 0	6 0	6 0	6 0	6 0	6 0	6 0	6 0
40		5 55	6 5	5 55	6 5	5 55	6 5	5 54	6 6	5 57	6 3	5 57	6 7	5 57	6 3
60		5 52	Ĝ 8	5 52	6 8	5 52	6 8	5 51	6 9	5 51	6 9	5 50	6 10	5 50	6 10
80		5 50	6 10	5 49	6 11	5 49	6 11	5 48	6 12	5 47	6 13	5 47	6 13	5 46	6 14
10°		5 47	6 13	5 46	6 14	5 46	6 14	5 45	6 15	5 44	6 16	5 43	6 17	5 43	6 17
12°		5 44	6 16	5 44	6 16	5 43	6 17	5 42	6 18	5 41	6 19	5 40	6 20	5 39	6 21
140		5 41	6 19	5 40	6 20	5 39	6 21	5 38	6 22	5 37	6 23	5 36	6 24	5 35	6 25
160	***************************************	5 39	6 21	5 37 5 34	6 23 6 26	5 36 5 33	6 24	5 35	6 25	5 33	6 27	5 32 5 28	6 28	5 31 5 28	6 30
1,0		3 30	0 24	0 01	0 20	0 00	0 21	3 01	0 23		0 00	0 20	0 05	3 20	0 00
200		5 33	6 27	5 31	6 29	5 30	6 30	5 28	6 32	5 26	6 34	5 24	6 36	5 24	6 36
210	• • • • • • • • • • • • • • • • • • • •	5 31	6 29	5 30	6 30	5 28	6 32	5 26	6 34	5 24	6 36	5 22	6 38	5 22	6 38
22° 23°	•••••••••••	5 30	6 30	5 28 5 26	6 32	5 26 5 24	6 34	5 24 5 22	6 36	5 22	6 38	5 21 5 19	6 39	5 20	6 42
240		5 27	6 33	5 25	6 35	5 23	6 37	5 21	6 39	5 21 5 19	6 41	5 16	6 44	5 15	6 45
250		5 25	6 35	5 23	6 37	5 21	6 39	5 19	6 41	5 17	6 43	5 14	6 46	5 18	6 47
26°		5 24	6 36	5 21	6 39	5 19	6 41	5 17	6 43	5 15	6 45	5 12	6 48	5.11	6 49
270		5 22	6 38	5 20	6 40	5 17	6 43	5 15	6 45	5 12	6 48	5 10	6 50	5 9	6 51
280	• • • • • • • • • • • • • • • • • • • •	5 20	6 40	5 18	6 42	5 15	6 45	5 13	6 47	5 10	6 50	5 .8	6 52	5 7	6 53
29°	••••••	5 18	6 42	5 16	6 44	5 13	6 47	5 11	6 49	5 8	6 52	5 6	6 54	5 4	6 56
30°	•••••	5 17	6 43	5 14	6 46	5 11	6 49	5 9	6 51	5 6	6 54	5 3	6 57	5 2	6 58
310	·•••••	5 15	6 45	5 12	6 48	5 9	6 51	5 7	6 53	5 4	6 56	5 1	6 59	5 0	7 0
320	• • • • • • • • • • • • • • • • • • • •	5 13	6 47	5 10	6 50	5 7	6 53	5 4	6 56	5 2	6 58	4 59	7 1	4 57	7 3
33° 34°		5 11	6 49	5 S	6 52	5 5	6 55	5 2	6 58	4 59	7 1	4 56	7 4	4 55	7 5
350	••••••••••••	5 9 5 7	6 51	5 6	6 54 6 56	5 3	6 57 6 59	5 0 4 58	$\begin{bmatrix} 7 & 0 \\ 7 & 2 \end{bmatrix}$	4 54	7 3	4 53	7 7	4 52	7 11
360	**************	5 5	6 55	5 2	6 58	4 59	7 . 1	4.55	7. 5	4 52	7 8	4 48	7 12	4 46	7 14
370	*****	5 3	6 58	5 0	7 0	4 56	7 4	4 53	7 7	4 49	7 11	4 45	7 15	4 44	7 16
380		5 1	6 59	4 58	7 2	4 53	7 7	4 50	7 10	4 46	7 14	4 43	7 17	4 41	7 19
300		4 59	7 1	4 55	7 5	4 51	7 9	4 48	7 12	4 44	7.16	4 40	7 20	4 38	7 22
		sets	rises	sets	rises	sets	riscs	sets	riscs	sets	riscs	sets	rises	sets	rises
	<b>&gt;&gt;→</b>	Nov. 11 >>> → Nov. 15 >>> → ≪ Jan. 23			Nov. 19		Nov. 24 ≫→ ←─⋘ Jan. 13				Dec. 6 ≫→ ←≪ Dec. 29		Dec. 15	**	
		18° 19°			200 210				22	90	230		231/2°		
L			SOUTH DECLINATION.												
			SOUTH DECLINATION.												

#### THE INDIAN CALENDAR.

### TABLE H.

#### ECLIPSES BY NAUTICAL ALMANACK RECKONING.

	A. D.	Ti	Time measured from Lanka mean sunrise, taken as 6 A. M.							
	Year, Month, and Day.	Great		Beg ning	i i	Perio		Eı	t	
		phas		Ecli		Begin- ning.	End.	Ecli		
	1	3		4	- ]	5	6	7		
1768 1768	Jan. 4 June 30		32 53	2 1	26 6	2 18	3 27	4	37 40	
1768 1769 1769	Dec. 23  June 19  Dec. 13	omit			21 dutica	13 20 l Almanac	15 0 k.	15	58	
1771 1771	Apr. 29 Oct. 23		12 33	$\frac{0}{14}$	$\begin{bmatrix} 6 \\ 24 \end{bmatrix}$	_	_	16	19 43	
1772 1772 1773 1773 1775	Apr. 17	15 16 7 16 14	9 17 46 56 14	13 14 6 15 12	22 19 23 25 50	14 19 15 25 — — —	15 59 17 9 — — —	16 18 9 18 15	56 15 8 26 38	
1775 1776 1776 1777 1777	Aug. 11. Feb. 4. July 30. Jan. 23. July 20.	6 13 23 15 11	19 32 5 27 51	4 11 21 14 11	50 33 19 2 14	12 38 22 18 —	14 25 23 53 —	7 15 24 16 12	48 30 52 51 27	
1778 1779 1779 1780 1780	May 30 Nov. 23 May 18	4 3 18 10 3	31 55 48 1 21	3 2 16 8 1	18 2 58 24 55	3 13 17 58 —	4 37 19 38 —	5 5 20 11 4	43 48 38 38 48	
1782 1782 1783 1783 1784	Sept. 21 Mar. 18 Sept. 10	7 13 20 22 2	26 20 34 35 42	6 12 18 20 1	5 16 42 44 31	19 43 21 44 —	21 25 23 26	8 14 22 24 3	47 24 26 26 54	
1786 1786 1787	Aug. 30	13 11 9 22 13	48 57 49 56 35	12 10 8 21 11	46 4 8	$ \begin{array}{c cccc}  & - & \\  & 9 & 29 \\  & 22 & 6 \\  & 12 & 59 \\ \end{array} $	10 8 23 45 14 10	15 13 11 24 15	10 8 33 43 26	
1787 1789 1789 1790 1790	May 9 Nov. 2 Apr. 28	14 8 23 23 23	10 31 19 3 42	12 7 22 21 21	45 27 15 16 44	22 14 22 51	23 51 24 34	15 9 24 24 25	36 23 24 49 41	
1791 1793 1793		15 24 22 13 21	44 26 1 59 24	14 22 20 12 19	$\frac{40}{35}$	20 31	22 17	17 26 23 15 23	11 23 23 22	

# TABLE H. (CONTINUED.)

### ECLIPSES BY NAUTICAL ALMANACK RECKONING.

Л. D.	Time measured	<del></del>	a mean s		is more reliable than the Nautical Almanack.
Year, Month, and Day.	Greatest Beginning of phase. Eclipse.	Period total obs  Begin- ning.		End of Eclipse.	
1	3 4	5	6	7	
1794 Aug. 11 1795 Feb. 3 1795 July 31 1796 Dec. 14 1797 June 9	6 '32 4 44 23 42 22 16 18 51 17 56 13 19 12 7 10 32 8 43	5 42 - - 10 0	7 22 — — 11 4	8 19 25 8 19 47 14 32 12 21	•
1797 Dec. 4	3     21     1     31       17     10     15     27       11     28     9     59       15     28     14     11       20     48     19     53	2 30 16 45 — —	4 11 17 35 — —	5 11 18 53 12 56 16 46 21 43	
1801 Mar. 30	4     27     2     35       6     21     4     32       10     17     9     1       21     39     20     13       20     23     19     13	3 35 5 32 — —	5 19 7 10 —	6 19 8 10 11 34 23 5 21 32	
1804 July 22	16     40     15     1       7     43     5     55       20     7     18     12       23     3     21     37       15     51     15     8	6 53 19 22 —	8 32 20 52 —	18 19 9 30 22 2 24 29 16 34	
1807 Nov. 15	7 12 6 11 6 40 4 55 7 16 5 19 23 42 22 11 8 5 6 28	5 53 6 26 —	7 27 8 5 —	8 13 8 25 9 12 25 12 9 42	
1811 Mar. 10	5     41     4     24       21     45     20     26       5     8     3     10       14     4     12     15       7     54     6     28	$ \begin{vmatrix}     - \\     4 & 16 \\     13 & 13 \\     - \\ \end{vmatrix} $	$\begin{bmatrix} - \\ - \\ 6 & 0 \\ 14 & 55 \\ - \end{bmatrix}$	6 58 23 3 7 6 15 53 9 20	
1813 Aug. 12	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c cccc}  & - & \\  & 17 & 2 \\  & 11 & 9 \\  & 23 & 41 \end{array} $	17 16 12 47 24 53	3 3 23 22 18 53 13 46 26 3	
1816 Dec. 4	19     38     18     9       23     23     22     13       4     28     3     42       12     11     10     20       14     16     12     28	11 20 13 28	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	21 8 24 34 5 14 14 2 16 4	
1820 Mar. 29	17 46 16 25 5 38 4 9 4 46 3 38 23 30 21 58 16 28 14 41		- - 17 17	19 7 7 6 5 54 25 2 18 14	

## TABLE H. (CONTINUED.)

#### ECLIPSES BY NAUTICAL ALMANACK RECKONING.

A. D.		measured :		a mean si			is more relialle than the Nautical Almanack
Year, Month,	Greatest phase.	Begin- ning of Eclipse.	Begin-	od of curation.	End of . Eclip	Ì	
1	3	4.	ning. 5	6	7		
1823 July 23 1824 Jan. 16 1824 July 11 1825 May 31 1825 Nov. 25	2 35 7 57 3 18 23 9 15 12	0 39 6 31 2 34 22 54 14 15	1 46  	3 25 — — — —	9 4	31 22 2 2 23 9	
1826 May 21 1826 Nov. 14 1827 May 11 1827 Nov. 3 1829 Mar. 20	14 18 14 59 7 19 15 57 13 11	12 35 13 3 5 46 14 19 12 0	13 35 14 11 *	15 1 15 47 *	8 17	1 55 53 35 23	* The Nautical Almanack gives the celipse as not quite total the digits eclipsed being $11^{\circ}$ .47 $\frac{1}{2}'$ .
1829 Sept. 13 1830 Mar. 9 1830 Sept. 2 1831 Feb. 26 1831 Aug. 23	5 36 12 46 21 41 15 59 9 3	4 24 10 49 19 53 14 30 7 47	11 54 20 51	13 38 22 31 —	14 23 17	48 43 29 27 19	•
1833 Jan. 6 1833 July 1 1833 Dec. 26 1834 June 21 1834 Dec. 16	7 2 23 45 20 35 7 23 3 51	5 52 22 7 18 46 5 35 2 22	19 46 6 40	21 24 8 5	25 22 9	13 23 24 10 20	· ·-
1835 June 10	21 39 7 9 12 17 19 44 22 20	21 10 6 7 11 41 17 53 20 34	18 54 21 34		12	7 12 53 35 6	
1838 Apr. 9. 1838 Oct. 3. 1840 Feb. 17. 1840 Aug. 13. 1841 Feb. 5.	25 2 13 44 13 5 6 26 25 10	23 35 12 13 11 59 5 1 23 23	24 21		15 14 7	28 15 11 51 56	
1841 Aug. 2	9 4 16 47 9 50 23 14 21 53	7 7 15 21 8 48 22 21 20 12	8 12 — — 21 15	9 56   22 31	10 24	1 13 53 7 34	
1844 Nov. 24	22 48 14 57 23 52 20 29 13 36	20 53 13 20 22 13 19 26 12 30	22 1 14 34 — — —	23 34 15 20 — — —	16 25 21	42 34 31 32 43	
1848 Mar. 19	20 15 5 22 23 58 16 13 15 53	18 19 3 34 22 28 14 50 14 43	19 24 4 33 — — —	21 6 6 11 — —	7 25	11 10 28 36 3	

## TABLE H. (CONTINUED.)

### ECLIPSES BY NAUTICAL ALMANACK RECKONING.

A. D.		mensured	from Laûl n as 6 A.	a mean si		is more reliable than the Naulical Almanack.
Year, Month, and Day.	Greatest	Begin- ning of	total obs	od of curation.	End of	
	phase.	Eclipse.	Begin- ning.	End.	Eclipse.	
1	3	4	5	6	7	
1851 July 13 1852 Jan. 7 1852 July 1 1852 Dec. 26 1853 June 21	6 24 5 13 14 29 12 6 5 4	4 53 3 24 12 40 10 36 4 16	4 24 13 41 —	6 2 15 16 —	$\begin{bmatrix} 7 & 55 \\ 7 & 2 \\ 16 & 17 \\ 13 & 35 \\ 5 & 53 \end{bmatrix}$	
1854 May 12 1854 Nov. 4 1855 May 2 1855 Oct. 25 1856 Apr. 20	14 49 20 15 3 8 6 32 8 9	13 56 19 48 1 17 4 47 6 37	2 20 5 48	3 56 7 16	15 41 20 42 4 59 8 18 9 42	
1856 Oct. 13 1858 Feb. 27 1858 Aug. 24 1859 Feb. 17 1859 Aug. 13	21 57 21 17 13 23 9 46 15 37	20 24 20 13 12 7 8 0 13 39	S 58 14 41	10 34 16 30	23 30 22 20 14 40 11 32 17 35	* The Nautical almanack gives this as not quite total, the digits eclipsed being 0.994.
1860 Feb. 6† 1860 Aug. 1 1861 Dec. 17 1862 June 12 1862 Dec. 6	25 32 16 28 7 21 5 24 6 43	24 5 15 11 6 30 3 45 4 49	- - 4 53 5 58	- 5 55 7 29	26 59 17 44 8 12 7 3 8 38	† The day is really the 7th (1.32, etc.). The entry of the sixth is retained for comparison with Table E.
1863 June 1 1863 Nov. 25 1865 Apr. 11 1865 Oct. 4 1866 Mar. 31	22 29 7 59 3 41 21 43 3 36	20 49 6 19 2 48 20 42 1 41	21 56	23 2	24 9 9 39 4 34 22 44 5 31	
1866 Sept. 24. 1867 Mar. 20. 1867 Sept. 13. 1869 Jan. 27. 1869 July 23.	13 10 7 52 23 29 24 41 13 6	11 23 6 19 22 0 25 32 11 43	12 22	13 58	14 57 9 25 24 58 25 50 14 28	
1870 Jan. 17. 1870 July 12. 1871 Jan. 6. 1871 July 2. 1872 Mny 22.	13 49 21 37 20 19 12 31 22 21	12 0 19 47 18 49 11 29 21 44	13 0 20 47 —	14 38 22 27 — —	15 38 23 27 21 49 13 32 22 59	
1872 Nov. 15. 1873 May 12. 1873 Nov. 4. 1874 May 1. 1874 Oct. 25.	4 22 10 23 14 54 15 6 6 19	4 5 8 33 13 10 13 28 4 45	9 38 14 11 6 3	11 8 15 37 6 36	4 40 12 13 16 38 16 44 7 54	
1876 Mar. 10. 1876 Sept. 3. 1877 Feb. 27. 1877 Aug. 23. 1878 Feb. 17.	5 24 20 25 18 18 22 14 10 14	4 24 19 18 16 33 20 17 8 46	17 30 21 22	19 6 23 7	6 24 21 32 20 4 24 12 11 42	

## TABLE H. (CONTINUED)

#### ECLIPSES BY NAUTICAL ALMANACK RECKONING.

N.B. It is proo		,		is more rettable than the Nautical Almanack.		
A. D.	Time		from Land n as 6 A.		unrise,	
Year, Month,	Greatest	Begin-		od of scuration.	End	
and Day.	phase.	ning of Eclipse.	Begin- ning.	End.	of Eclipse.	
1	3	4	5	6	7	
1878 Aug. 12 1879 Dec. 28 1880 June 22 1880 Dec. 16 1881 June 12	23 11 15 29 12 53 14 42 5 56	21 46 14 40 11 18 12 48 4 14	 12 34 13 57 5 17		24 · 37 16 18 14 28 16 36 7 39	
1881 Dec. 5 1883 Apr. 22 1883 Oct. 16 1884 Apr. 10 1884 Oct. 4	16 11 10 42 5 57 10 50 21 5	14 31 10 6 5 2 8 56 19 18	*  10 3 20 19	-* - 11 36 21 51	17 52 11 17 6 53 12 44 22 52	* The Nautical Almanack makes this eclipse just short of total.
1885 Mar. 30. 1885 Sept. 24. 1887 Feb. 8. 1887 Aug. 3. 1888 Jan. 28.	15 37 6 51 9 25 19 52 22 23	14 2 5 18 8 17 18 39 20 34		23 12	17 13 8 25 10 33 21 5 24 12	
1888 July 23 1889 Jan. 17 1889 July 12 1890 June 3 1890 Nov. 26	4 48 4 33 19 57 † 12 37	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	3 57 — † —	5 39 	6 38 6 4 21 8 7 12 42	† The Canon gives a very small eclipse. The Nautical Almanack and Connaissance des Temps, none.
1891 May 23 1891 Nov. 15 1892 May 11 1892 Nov. 4 1894 Mar. 21	17 32 23 22 21 56 14 48 13 24	15 44 21 38 20 13 13 12 12 29	16 52 22 40 — 14 24	18 12 24 4 — 15 12	19 20 25 6 23 40 16 24 14 18	
1894 Sept. 15 1895 Mar. 11 1895 Sept. 4 1896 Feb. 28 1896 Aug. 23	$\begin{bmatrix} 3 & 35 \\ 2 & 42 \\ 5 & 0 \\ 18 & 49 \\ 6 & 0 \end{bmatrix}$	2 39 0 57 3 3 17 19 4 27	1 55 4 10 —	3 30 5 50 —	4 30 4 28 6 57 20 19 7 33	
1898 Jan. 7	23 38 20 21 22 45 13 21 24 29	22 50 18 49 20 51 11 36 22 48	 22 0 12 36 §		24 25 21 52 24 39 15 6 26 10	§ The Nautical Almanack makes this Eclipse just
1900 June 13	2 31	2 27		-	2、34	
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